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LECTURE.

REMARKS ON CLINICAL CASES.[1]

1. POISONING BY ELDER, OR ALDER (?)—2. DOUBLE PHLEGMASIA, OR MILK LEG, AS A SEQUEL OF CATARRHAL PNEUMONIA.

From a Clinical Lecture delivered at the Pennsylvania Hospital, Jan. 20, 1894.

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The patient, now wearing a mask on his face and with hands and forearms bandaged, was admitted into the Hospital Jan. 15. He is a locomotive fireman, and usually enjoys good health and, in truth, was well when this inflammation and eruption upon his face and hands appeared. He gives the following account of himself: When on a visit to the country two weeks ago, he took a walk and was poisoned by a plant by which he has been poisoned once before. He cut a switch from a bush of red elder (not the edible variety), and incidentally applied his hands to his face and also to his genitals, while wet with the juices of the plant. This occurred January 7, and in a few hours was followed by an acute inflammation of the skin of the parts exposed. When he was admitted a week later, upon the reddened surface were seen many scattered papules and a few vesicles. This was associated with marked itching and burning, but not much secretion. The parts affected were the face, both forearms and hands and the genital organs.

It appears at first glance as if the patient were suffering from an acute eczema, but he says that he has previously been poisoned by the same plant, with which he is quite familiar, and that he is sure that in his walk he touched nothing else; and is quite certain that he did not come in contact with rhus, or poison ivy, on that day. With this eruption, there have been very few constitutional symptoms. He had no elevation of temperature and no other evidence of fever. The urine presented nothing abnormal. Burning and itching were the local symptoms of which he most complained.

This poisoning seems to us a very strange thing from either the elder or the black alder, both of which are used medicinally, and the leaves used as local applications, or infusions of the twigs, employed in the treatment of various forms of skin disease. It has been suggested that he might, in spite of his denial, have unconsciously come in contact with rhus, which we know to be poisonous, had he not asserted that it is the second time that he has been poisoned by the same plant, which he knows by the name of the black elder—which he tells us is not the edible variety, but the one that bears a cluster of red berries; it is probably the *prinos verticillatus* or black alder. We might still have believed that he might be mistaken, were it not for the fact that a distinguished physician of this city remarked to me that he himself had been poisoned in the same way several times, when a boy, by the elder plant.

As regards treatment, on account of the similarity of this inflammation to erysipelas, he was given, by the mouth, tincture of chlorid of iron 20 drops every four hours at first, and subsequently four times daily. As the skin was hot and, for the most part, dry, he was allowed one-sixth of a grain of pilocarpin, hypodermically, and this was repeated three times a day until sweating was produced, which gave him considerable relief. We observed also, following this, an eruption of vesicles upon his face. The pilocarpin was evidently of great service. Local treatment was also used which afforded marked relief. The fluid extract of witch-hazel diluted (1:4) was applied to one arm, bicarbonate of soda solution to the other, while ichthyol ointment containing soda, glycerin and water was used for the face. In this way, we instituted a comparison of different remedies ordinarily used for this purpose. The effect of each was observed. The soda gave temporary relief, and so did the witch-hazel, but the best result was obtained from the ichthyol, which was a great success. It not only gave such prompt relief as to attract the patient's notice, but the inflammation of the skin subsided more rapidly when it was applied. It was a 10 per cent. ointment of ichthyol in lanolin that was employed in this case.

In the treatment of this patient, two things were of marked benefit, the pilocarpin given hypodermically and the ichthyol locally. As he is rapidly improving, we will continue the ichthyol ointment as a local treatment and reduce the iron to 10 drops three times a day. The pilocarpin is no longer necessary and will not be continued.

[The patient was again presented before the class, a week later. His face was clear except two small furuncular spots on the forehead. The hands and forearms were free from inflammation and the skin was desquamating. The patient expressed himself as feeling well enough to return to his work and was discharged a few days later. It was noted during the healing process that the intense itching was promptly relieved by applications of alcohol diluted with water.—REP.]

I will now present you a case of quite another character:

Thomas McC., born in Ireland, a rigger by occupation, 34 years of age, was admitted Dec. 26, 1893. Occasionally uses alcohol, and constantly uses tobacco. He had a severe attack of grippe six years ago, and a second attack two years ago. Last November he was treated in the Newark Hospital for pleurisy, and was discharged about the first of last month after four weeks' treatment. He was then well and returned to work, in which he was much exposed to the weather. One week before admission here he had severe pain in his right side, with cough, slight expectoration, short breath; no headache or pains in limbs. On admission he had dullness on percussion at left base in axillary line, with diminished vesicular sounds and distant bronchial breathing; a few mucus râles. Urine contained neither albumen nor sugar. Heart examination was negative.

From the notes which you have heard read, you would say that this was a case of very marked

[1] Reported for the JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

catarrhal pneumonia. The distinctness of physical signs, the flushing of the face and short breathing, even in the absence of other symptoms, led us to recognize the nature of the case and treat him accordingly. But it is not on this account that I bring this patient before you; but he speaks of a most extraordinary sequel in this case. Ten days after admission, he was nearly well, the shortness of breathing was relieved, the physical signs in the lung were gradually passing away and he was convalescing comfortably when he called our attention to a pain which he had in his right leg. We found tenderness upon pressure, especially below the saphenous opening and following the course of the vein. Presently, or rather the following day, there was enormous swelling of the whole limb; it was not quite twice the size (girth) of the left leg. With it there existed the following signs: The leg was cold, the veins were much distended, so that the whole appearance of the parts from the thigh downward, was that of a dark blue surface. The femoral vein was evidently occluded, and it was extremely hard and tender to the touch. The condition of the limb referred to extended upward into the lumbar region. The pain from the swollen limb was so severe that for four days the man could not get any rest, and only slept when he was given opiates.

Now, the condition of things was finally and very favorably modified by elevation of the leg and hot moist applications. At first, poultices were used but were soon succeeded by warm fluid extract of hamamelis. Under the treatment the pain has disappeared, and the leg, though still somewhat swollen, has resumed a more natural appearance. All this time, strange to say, his temperature showed no elevation; the slight elevation, indeed, which previously existed passed away. Lately, indeed, during the last four or five days the temperatures in the morning and evening are somewhat abnormal.

The urine examinations which were made carefully and repeatedly showed nothing wrong in the kidneys; 1018 is the record of specific gravity; no albumen, no sugar. There were no marked digestive symptoms. Early in the case, when he first came here, there was some nausea and vomiting, but nothing of the kind has occurred since he complained of the pain in his leg.

You would naturally suppose that on seeing a case of this character, we at once asked questions as to the abdominal circulation; whether or not pressure upon venous trunks existed to explain this phenomenon. This we did, but could find nothing of the kind. Also, in following out this line of thought, we examined for enlarged prostate gland through the rectum. This also proved unavailing. In other words, we could find no explanation in the abdomen for this condition. His tongue is slightly coated; appetite fair; no vomiting; bowels regular, though we have had to aid in this matter because he has shown a tendency to constipation throughout the disease, even since admission.

I will now proceed to examine his heart: The first sound is feeble, as it has been throughout; the second sound is distinct. There is no increase in size of the heart; simply a feeble action, just as is sometimes met with in rather low fevers, especially in typhoid fever. That was a feature from the very beginning of the case. In the lungs, he has no longer any dullness anteriorly. I will not examine him posteriorly as I do not wish to disturb him, but from my last examination I can say that the lung symptoms have passed away; nothing was found in the posterior portion of the lungs when he was last examined in the wards.

On coming to the abdomen, you will see that he has a poultice now on his abdomen. This was applied because he complained of pain in the region this morning. There is some distension of the abdominal veins, especially now on the left side. There is no tenderness, no eruption, and I will further add that we have examined him for typhoid fever by applying Ehrlich's test to the urine, but with negative result.

I shall show you that this man has not only swelling of the right leg, but you will also see this morning a curious state of things. The left limb now is swollen until it is larger than the right. This swelling of the left leg is of recent development; it only began day before yesterday. But seeing him this morning, you will hardly believe my previous statement as to the relative size of the legs. The right is still somewhat swollen, although much reduced, but the left is now the larger limb. In other words, this man has double phlebitis; on the right side subsiding, on the left only recently begun.

Let us study the case a little more closely. He has now no pain in the right leg. The cordy condition of the veins has passed away. He has still numbness in the right foot. The thigh still looks somewhat blue. With the exception of the numbness and the color, there is nothing especially abnormal now in the right leg. But look at the left! The thigh is subject to pain and tenderness on pressure; there is marked sensitiveness in the calf; there is considerable soreness in Scarpa's triangle, and the veins are distended in the upper part of the thigh to as intense a degree as on the right side when it was at its worse. There is manifest swelling with pitting upon pressure with the finger. The veins on the surface around the saphenous opening are distended, and there is slight tenderness over the left femoral vein. The limb is large and discolored in the same manner as the right one was.

The diagnosis is clear enough. The case is one of double phlebitis of the lower limbs, coming on first in the right leg and then in the left. I may add that the same treatment is pursued with the left leg as with the right one. The limb is elevated and kept bathed with hot hamamelis solution. He is taking 12 grains of quinin a day and has been taking as a cardiac stimulant carbonate of ammonia, 5 grains, every four hours, which I will now stop and order in its place the tincture of digitalis, 10 drops, four times a day. At the same time, we will see that the kidneys continue to act well and if the digitalis prove not sufficient as a diuretic, let him in addition take 2 drachms of acetate of ammonium, in solution, daily. This can be aided by occasional saline laxatives. I have now stated the treatment and will briefly consider the pathology of the case.

You will naturally ask what is the cause of all this? I have already told you that this is an extremely rare case. Double phlebitis of the legs following catarrhal pneumonia is so far from being common, that this is the first case of the kind I have seen. I have seen one or two case of phlebitis after pleurisy. In truth, an instance came to my notice of phlebitis in pleurisy proving fatal by the throm-

bus being detached from the vein and finding its way to the heart, as the autopsy proved. As you noticed in the history of this case, this man also had pleurisy and you might say that this was the cause of it all. And I should also think so, were it not for the fact that, on admission, all signs of pleurisy had passed away, and we only accepted the history of pleurisy because of the statement of the patient that he had been treated for pleurisy at a hospital, where we know that the physicians were fully competent to make the diagnosis, and we, therefore, are willing to take this as part of the clinical history of the case. We know that he did have catarrhal pneumonia, which must have appeared after the pleurisy had gone. He stated that he had been well after the attack of pleurisy and was again at his work. There is in the case a possibility that this thrombosis may be due to pleurisy because the man actually had pleurisy; but I can not accept this theory of the case for the reasons stated. The phlebitis came on during convalescence from pneumonia and, as I have said, it is the first case of the kind I have seen. Phlebitis, however, is not uncommon. I have seen it in many cases; dozens of times in acute fevers, such as typhus and typhoid. In cases of fever where the circulation becomes feeble, there is this tendency to coagulation of blood in the veins. It is most common as a sequel to parturition, and may be an expression of blood poisoning such as occurs in pyemia. I have never previously seen it in an acute inflammation of any viscus, and have searched medical literature without success for a similar case to the one now presented. You might say that it is a coincidence, and that the pneumonia and the phlebitis have nothing to do with each other, were it not that the phlebitis has appeared also in the left leg, which shows something in the man, or something peculiar to his condition which makes it possible for the phlebitis to occur.

Now, is it possible that this catarrhal inflammation of the lung was in reality only a part of an attack of influenza? It would be much easier to explain the occurrence of this complication if the patient were suffering from a general disease than if he had simply an acute attack of pneumonia. The patient states that he had two attacks of influenza before this illness. I can not, however, entirely accept this view of the case because when the man was admitted he had no pains in the bones or muscles; he had no headache, in short, none of the ordinary signs of influenza.

Whether it be due to catarrhal pneumonia or to influenza; how can we explain this phlebitis, this coagulation of the blood in the veins? It can only be through the circulation. All through the case feebleness of the heart's action has been observed. Notwithstanding the iron, notwithstanding the carbonate of ammonia, his condition has been throughout, as it is now—"feeble first sound, feeble pulse." It is possible that with this feeble circulation a certain condition of the blood was present which favored the formation of a clot, and that the phlebitis occurred in consequence of the plugging of the vein with a thrombus. Indeed, here I can find no other explanation. It has been said that the lowered state of the circulation in typhoid fever is due to a poison circulating in the blood, and possibly this may be derived from the ulcerations in the intestines, or in other words there is set up a condition of septicemia. No such explanation can be offered here; we can invoke nothing but a poor condition of the blood and general feebleness of the circulation as the cause of the thrombosis. What is the prognosis in this case? The man will get well. The right leg has almost recovered, and the left is improving under the elevation of the limb, upon which I lay great stress, and the warm fomentations. His recovery is undoubted, but after he goes about there may be some stiffness, swelling or tenderness along the veins for a time, interfering with active exercise, so that convalescence may be slow; very much like what takes place after typhoid fever.

ORIGINAL ARTICLES.

A PLEA FOR ASEPTIC VACCINE VIRUS AND ASEPTIC VACCINATION, WITH A CASE IN POINT.

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On the continent every effort is made to secure aseptic lymph. Its asepticity can not be otherwise than probable, until the specific germ or tox-albumen of cowpox shall be isolated, and a laboratory product placed upon the market. However, it is not unreasonable to now require that a vaccination abrasion be treated as is any other abraded surface, viz: aseptically. Since the vitiation of bovine virus by twenty or more demonstrable germs can not as yet be excluded, added infection from skin and air can, at least, be prevented by the antiseptic preparation, operation and dressing of the arm.

Should an ulcer, erysipelas, lymphangitis or phlegmon appear, treat each as you would surgical complications elsewhere. Granting them to be infectious, it follows that their invasion and effects must be minimized.

In the proceedings of the Pediatric Section of the New York Academy of Medicine, reported in the January, 1894, number of the *Archives of Pediatrics*, Dr. J. Lewis Smith describes a case of fatal sepsis and death following vaccination. Dr. J. H. Fruitnight mentions a case of tetanus in this relation. Home and foreign literature contributes its quota of cases. The editorials in an early summer number of the *British Medical Journal* entitled, "Militant Antivaccinators" and "The Vaccination Craze," unintentionally reveal the same unfortunate state of affairs. Consequently, the relevancy and justice of this opposition can not be overlooked.

Dr. J. Lewis Smith's case is commented upon as follows: "Inasmuch as the symptoms of sepsis had not developed for a week or more, the inference was that the wound became infected subsequent to vaccination. The case taught the lesson that greater care should be taken to protect the vaccination wound against infection."

Doubtless great and general carelessness prevails in this respect, but the criticism is not far-reaching enough, in that it fails to touch the root of the evil, the contamination of the virus itself. Reference has been already made to the unavoidable microbic pollution of the lymph. A little study, or better still,

a visit to a vaccine station, will convince one that there are other and many extrinsic sources of defilement. Here, in America, there is no certainty that the cow is prepared or the virus secured in accordance with the dictum of surgical bacteriology. The vaccine stables are private commercial institutions subject to, absolutely, no federal, State or municipal regulation. It is not sufficient that the stock be select and healthy, and the stables hygienic; the most rigid adherence to antiseptic principles in the bovine inoculation, subsequent dressing, and securement and preservation of the lymph, should be demanded as well.

An epidemic, if not pan-endemic, of sore arms imperatively calls for organized effort on the part of the profession, in order to effect improvement in the present vaccine supply. Proper investigation, organization and legislation with reference to this, so important a subject necessitates time, while its exigency requires immediate attention. The emergency might be dealt with through the agency of accredited representatives of the local medical societies. These agents might instruct owners and managers of vaccine stations as to the requirements of the profession; the refusal or acceptance of these requisites to be met on the one hand by a boycott, and on the other hand by the offer of a premium for purer virus. My earnest consideration of this subject was stimulated by a case of thrombo-phlebitis, pyemia and death that occurred in my practice two years ago.[1]

A nursling, although marasmic and feeble from prolonged confinement to a ward that had been quarantined for an outbreak of measles, was vaccinated because of a smallpox endemic in the institution. The operation was antiseptically done but, to my astonishment, almost every member of the large ward developed some vaccinal complication.

A recent visit to the stable from whence the virus was then obtained explains these manifestations.

The arm of this child, however, presented nothing abnormal and the wound over the left deltoid was about healed, when the nurse called my attention to an abscess on the superior antero-internal aspect of the left arm. Other abscesses rapidly and successively appeared in the left axillary, infra-scapular and pectoral regions, and finally another was found over the lower part of the internal saphenous vein. Nodulation and ecchymosis, involving the affected vein and contiguous tissue, occurred in each instance. Nasal and aural hemorrhages and the rapidly progressive prostration simply confirmed the original diagnosis.

At the autopsy, I found a thrombus in the cephalic vein but a short distance from the normally fovealated scar. The relations of the cephalic to the basilic, subscapular, thoracic and axillary veins demonstrates the infection, atrium and course. Its transmission through the heart and lungs into the general circulation needs no further explanation. Though not creditable, the case has taught me many lessons, and I trust will rouse the profession to a realization of the septic condition of the vaccine virus in general use.

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[1] Reported with other cases in my article, "A Contribution to the Study of the Accidents of Vaccination," in the June number of the North American Practitioner.

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THE TREATMENT OF ULCERS OF THE LEG.

Read in the Section on Dermatology and Syphilography at the Forty-fourth Annual Meeting of the American Medical Association.

BY LOUIS FRANK, M.D.
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The treatment of ulcers of the leg has at all times been the *crux medicorum* and has heretofore, as a rule, been assigned to the field of the surgeon, although in most cases a true affection of the skin. The vast number of remedies advocated for the relief of this pathologic condition only speak for the difficulties offered in its treatment. The entire old arsenal and an array of new remedies, as iodoform, salol, dermatol, europhen, aristol, ichthyol, etc., have been successively brought forth as remedies, par excellence, in the therapeutics of ulcers of the leg. The cause of the failure in the accomplishment of the required result lies not so much in the non-efficaciousness of the above named drugs as in the faulty adaptation to the pathologic condition of the parts. A close study of the relations and the etiologic condition ought to convince us that a particular drug is incapable of meeting all the requirements, which the treatment of the chronic ulcer of the leg demands. Even a simple ulcer on any part of the body, caused by a local lesion, requires, according to its indications, a treatment which can not be followed out by one particular remedy; how much more a chronic ulcer of the leg, which usually presents such a varified appearance of pathologic complications.

We can easily understand why one particular remedy is incapable of fulfilling all indications in relation to the cure of an ulcer, and why it is absolutely necessary to study the pathologic appearances which an ulcer at the time presents, to apply the proper measures. At one moment we will find the ulcer shallow with a necrotic base; at another time its surface covered with exuberant fungous granulations, and our treatment must be directed accordingly.

The causes which lead to the formation of ulcers of the leg are principally the unfavorable anatomic relations of the parts. In the first place its arterial circulation is diminished on account of its greater distance from the heart; second, the centripetal circulation of the venous system is impeded by the pressure of the venous vessels during walking or standing. Under the influence of this stasis and the peculiar tension of the skin on the anterior border of the tibia, a very trifling lesion, as the bursting of an eczematous vesicle, the opening of a furuncle or any mechanical insult will result in the formation of an ulcer.

The manner in which an ulcer begins, varies according to its origin on the surface or in the depth of the skin. If it develops on an inflamed portion of the skin, a condition of stasis being present, an infiltration of wandering cells takes place in the superficial layers of the cutis, the papillæ are enlarged and the connective tissue of the papillary layer is softened and macerated. The epithelial layer of the superficial stratum fails to regenerate itself, the cellular layer of the rete Malpighii is exposed and a suppurating surface, whose upper layer consists of wandering cells and the lower of the enlarged papillæ, appears. Beneath this layer of necrotic or pus infiltrated tissue the base of the ulcer is always hyperemic. If the ulcer takes a favorable

course, the hyperemic surface will, after the necrotic tissue is thrown off, develop into granulations which consists of new loops of vessels covered with young granulation cells. The process of healing going on, the granulations arrive at the level of the borders of the ulcer. Then there becomes visible at its edge and at times on the summit of some of the granulations, a soft epithelial covering which grows denser as it grows toward the center of the ulcer. The granulatory tissue shrinks to a mass of firm elastic tissue and cicatrization takes place.

After these preliminary remarks, in which I have attempted to describe the etiology and formation of an ulcer, the pathologic processes during its development, and consequent cicatrization, and before passing to the treatment (proper) of ulcers of the leg, I deem it advisable to refer to a classification of ulcers which would aid in the correct diagnosis and treatment of the same.

Among the older authors, Bell has first divided ulcers into local and symptomatic ulcers, or those dependent on the consequence of a general systemic disturbance. Langenbeck has made a similar nomenclature, dividing ulcers into two great groups; primary and secondary ulcers, and Billroth likewise mentions two classes of ulcers: 1, the local idiopathic ulcers, including the erethitic, fungous, callous, etc.; and 2, the symptomatic ulcer including the scrofulous, syphilitic and so on. On the basis of this last classification I have attempted to classify the ulcers, which are apt to affect the leg, as seen by this chart:

Idiopathic or Local.	1. Simple			
	2. Complicated.	Faulty vitality. . .	Hyperesthenic	Erethitic
			Asthenic . .	Torpid
		Faulty secretion .	Putrid	
			Gangrenous	
		Faulty floor of ulc'r	Edematous	
			Hemorrhagic	
		Faulty granulation	Fungous	
			Hypertrophic	
		Faulty border . .	Callous	
Symptomatic.	1. Due to constitutional infection (basis healthy).		Diptheritic	
			Syphilitic	
			Mercurial	
			Scrofulous	
			Scorbutic	
	2. Due to constitutional infection (basis degenerated).		Tubercular	
			Lupus	
			Tertiary syphilis	
			Carcinomatous	
			Ulcus rodens	
	3. Due to internal causes.		Varicose	
			Gangrenous	
			Neuro-paralytic	

SIMPLE ULCER.

The simple ulcer usually occurs in persons, in whom there is no constitutional defect connected with nutrition, circulation or innervation, and is usually the result of mechanical injury. The surface of such an ulcer is depressed, red, and presents irregular projections of granulating tissue all over; the margins consist of healthy skin of more than the usual vascularity, the borders appear white with an inner line of a pinkish hue, which shades off into the bright red of the granulation.

The treatment of simple ulcers requires nothing but cleanliness and protection for their cure.

Among the ulcers complicated with a faulty vitality must be distinguished the hyperesthenic and the asthenic ulcer. The former, also called the inflammatory ulcer, is characterized by a very red ulcerating surface, slightly swollen and bleeding readily. Its treatment consists of soothing applications, and I have been in the habit of prescribing a lotion recommended by Crocker:

℞. Pulv. calaminæ prep . . . . . ℈ij.
Zinci oxidi . . . . . ℥iss.
Ol . . . . . ♏
Aq. calcis ãã . . . . . ℥j.
M.

The asthenic ulcer may be erethitic; that is, abnormally hyperesthetic with little tendency to heal, and the torpid ulcer characterized by a very diminished sensibility. The former is best treated by nitrate of silver or the actual cautery in order to convert it into a simple healing ulcer.

The treatment of the torpid ulcer will be considered with the treatment of the callous ulcer, which it resembles in many particulars.

Among the ulcers complicated with faulty secretion, we include the putrid ulcer, which on progressing causes a breaking down of the surrounding tissues and is changed to a phagadenic or gangrenous ulcer. The secretions are putrid and of a greenish-gray appearance. The treatment of this form of ulcer consists in the application of strong antiseptics, particularly carbolic acid, chlorid of zinc, sublimate, especially iodoform, which quickly destroys the smell, If the putrid ulcer has already become gangrenous. the destruction of the gangrenous parts, including some of the apparently healthy tissues, by the thermocautery is indicated. Thiersch has advised to make hypodermic injections of nitrate of silver 1:1500 into the cuticle at the distance of one centimeter from the margin, one centimeter apart, until the whole border of the ulcer is swelled.

Among the ulcers complicated with faulty granulation may be mentioned the fungous and hypertrophic ulcer. This form of ulcer is characterized by prolific exuberance of spongy granulations (wild flesh), extending far over the under surface of the ulcer. In mild cases it suffices to apply the stick of nitrate of silver to the granulations. If, however, the granulations have a tendency to grow and extend, it is advisable to remove the same with the scissors or the Volkmann spoon, under antiseptic precautions.

I will now confine myself to the discussion of the chronic ulcer of the leg, the callous ulcus cruris.

CALLOUS ULCER,

which is the typical ulcer of the leg, the old sore shin of the laboring classes, and the one which should chiefly engage our attention. It exists frequently without constitutional complications, in robust, healthy persons past the middle period of life. At first a simple sore, it suffers from neglect, the clothing irritates it and secretions are allowed to collect on and about it. In the beginning it tends to heal like any healthy ulcer, but it is injured again and again until each successive appearance increases its indolent and callous character. The surface is depressed and presents a yellowish-gray appearance, with perhaps here and there a red or pink granulation peeping through, the edges are elevated and abrupt, covered with a thick, scaly epithelium, the surrounding parts are hard, callous and infiltrated. The circulation is feeble and insufficient and showing no inclination to bleed.

The general practitioner, even the surgeon, does not take a correct view of the treatment of this chronic ulcer of the leg; the true nature of the disease is imperfectly understood, because the knowledge of its pathology is not properly comprehended; and it is not an uncommon thing to meet with

patients who have been afflicted with a sore leg for ten and twenty years or more. This is particularly true of the poorer hardworking classes, especially of women who have borne many children. Heretofore the treatment of this class of patients has devolved on the surgeon, and I believe only during the past years the dermatologists have taken a livelier interest in the therapeutics of the ulcus cruris. I am of the opinion that the treatment of this complaint belongs to the field of dermatology, as the ulcus cruris proper is virtually only a skin lesion, although many times associated with disturbances of remoter organs and irregularities of circulation.

The two main principles that govern the treatment of the chronic ulcer of the leg are rest and cleanliness, including protection. Unluckily, however, these two indications can not always be strictly carried out as in a hospital; the patient is unwilling to be confined to his bed for a trouble which does not concern his general health and welfare. Especially if we consider that it is usually the hardworking class which is so affected. Means must be devised to treat the patient ambulatory and this can be quite satisfactorily accomplished by the following methods of treatment. The one is according to the principles laid down by Dr. Unna of Hamburg, consisting of a zinc-gelatin dressing, which I am in the habit of applying in the following manner: after the ulcer itself has received proper attention by means of antiseptic washes and according to indications, make applications of nitrate of silver if there should be hypertrophic granulation, or iodoform if the surface is putrid, torpid and lacking granulations. The leg is washed and shaved and a moderately thick layer of warm zinc gelatin prepared according to following formula:

Zinci oxidi	30.0
Gelatin alb	40.0
Glycerin	50.0
Water	90.0

M.

Applied by means of an ordinary brush up to the limits of the ulcer. A small pad of medicated cotton or gauze is added as a covering to the sore, a gauze roller beginning at the toes, wound firmly around the limb. When a firmer dressing is required, for instance, if it is intended to remain for a longer length of time, I cover the above layer of gauze with another layer of gelatin and continue the bandage over the same from above downward. It is then allowed to cool off and become dry, whereupon the patient can be dismissed without further precautions. If the discharge is very profuse I repeat the identical dressing after about three days, until the discharge becomes less profuse, when I allow it to remain eight days and longer. The chief advantage of the dressing is: 1, the perfect protection it offers to the diseased parts; 2, the gentle but even compression which is exerted on the leg by elasticity of the gelatin, for which reason it is especially well adapted for similar lesions in connection with varicose veins. Furthermore, the discharge is effectually prevented from coming into contact with the healthy skin. The simplicity and cheapness of this dressing are likewise greatly in its favor. Not only the ulcer, itself, is greatly improved by this method of treatment, but also such complications as are dependent on the ulceration, as edematous infiltration, chronic squamous eczemas and varicose conditions are permanently relieved by it.

Following is a report of the German Hospital, Dalston, of the treatment of ulcus cruris by Dr. Unna's method. It comprises sixty cases of the various forms of ulcers, viz:

Ulcer.	Healed.	Discontinue attending.	Unsuccessful.	Total.
Callous	14	6	2	22
Varicose	7	—	—	7
Healthy	7	—	1	8
Sloughing	2	—	1	3
Indolent	1	—	—	1
Syphilitic	—	—	2	2
Diabetic	1	—	—	1
Inflammatory	4	1	—	5
Eczematous	4	1	—	5
Eczema cruris	5	—	1	6

In connection with the above treatment I can not speak too highly of the great value of resorcin, in producing new epithelial formation, only second in value to actual transplantation of skin in the healing of ulcers. I usually apply it as soon as healthy granulations begin to make their appearance. It is most conveniently applied in a 10 per cent. plaster made by Beiersdorf in Hamburg.

Notwithstanding the remarkable and gratifying results obtained by above method with the zinc gelatin dressing, it is ineffectual where a callous, dense, infiltrated condition predominates and we must have recourse to other treatment, especially if the treatment is to be ambulatory. To accomplish this object, it has been customary for many years to apply a dressing first described and introduced by Boynton, which consisted of the application of strips of adhesive plaster, of the width of two fingers beginning below the ulcer and encircling the whole affected part of the limb tile-like, and finally wrapping up the leg in a flannel bandage. By this process the borders of the ulcer are drawn towards each other, the circulation improved and granulation encouraged. I have found much occasion to apply this mode of treatment with very good results. However, I have noticed that the plaster, unless it was a very good one, incited an inflammatory condition of the healthy surrounding skin and the discharge escaped from the ulcer and communicated with the adjacent normal parts. I, therefore, substituted for the ordinary adhesive plaster, the diachylon plaster or ointment of Hebra, which exerts a beneficial action on the condition of infiltration, at the same time compressing the limb. In order to lessen the callous condition and hasten the absorption of the infiltrated tissues, I make use of a preparation of tar, preferably the oleum fagi, with which I paint the thickened surroundings of the ulcer.

The method I usually employ for callous ulcers is as follows: After thoroughly cleansing the ulcer and the leg with a corrosive sublimate solution 1:1000, I apply the ol. fagi to the infiltrated tissues surrounding the ulcer. I then take strips of diachylon plaster about two inches wide and one-third longer than the circumference of the leg or similar strips of linen covered with the fresh diachylon ointment, and beginning at the foot, encircle the leg in a manner so that one strip slightly overlaps the other up to the distance of the knee-joint. I find it a rule that the pain of the ulcer ceases after the first application, and within a week's time the sluggish, torpid and undermined appearance of the ulcer is changed to that of a simple, healthy granulating one. At the beginning of the treatment, I change the dressing daily, until the discharge becomes less profuse, when

a period of four or five days may elapse before a new dressing is needed. I find it necessary to treat the ulcer locally at each change of the dressing, according to indications, washing it with antiseptic solutions, applying iodoform when the granulations are sluggish, and nitrate of silver or the ferrum candens where the granulations threaten to become hypertrophic. I believe that this treatment conscientiously carried out will in the great majority of cases, prove successful.

FIBROID TUMORS OF THE UTERUS.

TREATED BY DR. FRANKLIN H. MARTIN"S OPERATION OF LIGATING THE BROAD LIGAMENTS—TWO CASES.

BY J. B. GREENE, M.D.
MISHAWAKA, IND.

Mrs. P. of Grand Rapids, Mich., had for several years been a subject of frequent and profuse uterine hemorrhage; during the years of 1892 and 1893 she suffered greatly with pelvic pain, and constipation. In November, 1893, I was sent for to perform hysterectomy, the physician in charge having diagnosed the case as one of uterine fibroid. Upon examination I found a fibroid almost completely filling the pelvic basin, and so adherent that it was entirely immovable. I should judge that the tumor would weigh ten pounds at least. I did not look upon hysterectomy in that case as promising much more than a coffin, and as I had but a short time before had a talk with Prof. F. H. Martin of Chicago, on his recent experiment in the ligation of the uterine arteries, (this conversation was before Prof. Martin had reported his experiment) I determined to adopt that method, adding thereto the ligation of the ovarian arteries, or one of them. Accordingly I made the ligation of the uterine arteries and a part of the broad ligament after the method described by Martin, but found it impossible to reach the ovarian artery per vaginam. I then cut through the abdomen, and with considerable difficulty was enabled to pass a ligature around both ovarian arteries, passing my needle under the Fallopian tubes, and then back and around the vessel, tying close to the uterus; the uterus showed such a great engorgement of blood that I felt certain there would be no danger of gangrene of the uterus, as there was sufficient collateral circulation from branches of the ovarian artery to maintain life in the organ. After the operation I left the patient in the care of her physician, hearing from her several times during the first two weeks, each report being favorable; after that I heard nothing. Jan. 9, 1894, I was in Grand Rapids, and called upon her. I was indeed surprised to see the great change that one year had made. She was the picture of health, and she informed me that she had never been better. She granted me the privilege of an examination. I thought that I could discover some enlargement of the uterus still remaining, but, if so, it was so slight that it was not worth considering, in the light of the great decrease in the size of the growth. She menstruates regularly and apparently normally, excepting that she has a slight pain during the first day, not often of sufficient severity to cause her to take her bed.

In August, 1893, I was called to see Mrs. H., Mishawaka, Ind., age 31 years. She had for two years been suffering with repeated floodings, not profuse, but frequent. Examination revealed a subserous fibroid in the posterior uterine wall, about as large as an unhulled walnut. She was anxious for relief, but objected to hysterectomy until everything else had been tried. I, therefore, decided to ligate the uterine arteries. She suffered no pain, and I was unwilling to ligate nerve fiber if I could avoid it, accordingly I passed a "guy" through the cervix and close to the os made an incision, entirely encircling the cervix, down to the cellular tissue; then with a "spud" or dry dissector I peeled the tissues back almost to the peritoneum. The uterine arteries were thus brought plainly into view, and with no trouble I passed my ligatures around them, tied and cut them short; then drew down the external uterine coat and with a continuous catgut suture I stitched it in natural place. I had no trouble with the case after; she never had a fraction of a degree of fever, suffered no pain, and in two weeks was out of the house; has menstruated regularly ever since, and has had no floodings. I have not examined her since, so can not say as to the condition of the tumor.

TECHNIQUE IN TÆNIA TREATMENT—REPORT OF A REMARKABLE CASE.

BY C. M. FENN, M.D.
SAN DIEGO, CAL.

In the absence hitherto of any unfailing tænicides or specifics, it may be profitable to inquire if there are any other methods available for the safe and certain expulsion of the various cestodes. Personally, having abandoned the search for such a remedy, for the reason that it might imperil the well-being of host as well as guest, I find that some of the standard tæniafuges, if employed in adequate doses and supplemented by attention to certain details, to be noted farther on, may be made to accomplish all that we desire. For example, during the local prevalence of tape-worms which followed the importation of a measly herd from Mexico, some years ago, I came to use kameela in doses of 8 to 12 grains (3ii-3iii), and ethereal extract of male-fern to the extent of 4 to 10 grams 3i-3iiss). These apparently large doses, exceeding those recommended by the authorities of that period, were successfully administered and upon the hypothesis that a parasite which merely imbibes its sustenance, having neither mouth or intestine, and suckers for prehension only, must require quantity as well as quality. In the matter of details referred to, jalap was selected for the before and after cathartic, in preference to several others commonly used. For instance, castor oil, so widely commended in such cases, was believed to be deficient as a peristaltic persuader and practically inert in the presence of mucus. Senna is equally insufficient in its action and aloes correspondingly tardy, expending its force on the lower bowel. Jalap, on the contrary, besides having somewhat of an anthelmintic reputation is safe and admirably adapted for children, to whom it may be given clandestinely in gingerbread or cookies. Following the last dose of the purgative it is advisable to employ frequent enemata of cold water, with or without salt or soap. These appear not only to chill the worm but to measurably increase peristalsis.

Of the three species of tæniæ which mature in the human intestine, tænia saginata, tænia solium and *bothrinocephalus latus*, the first is of more frequent occurrence in tropical latitudes like this owing, doubtless, to the greater consumption of beef in comparison with other meats.

That tænia solium (pork-worm), however, is not unknown here may be inferred from the following case which may also be considered a fitting résumé of the foregoing remarks:

A little boy, on his first legs, injured a toe, to which his mother applied a bit of fresh pork. A second application, soon required, was about to disappear as mysteriously as the first when he was detected in the act of eating it. Three or four months later during a convulsive seizure several segments of a tænia solium were expelled. Believing it to be an instance of *post hoc propter hoc*, active measures were then taken to relieve the child of his unwelcome guest, and before reaching his third year he passed through ten severe ordeals, expelling in the aggregate 110 feet[1] of tape worm! The first three doses, by homeopathic direction, the parents believe were kousso or kameela in combination with some other drug. At all events, after each attempt the child was "sleepy, feverish and a source of great solicitude for twenty-four hours." A fourth dose by another attendant was known to consist of 15 drops of chloroform and one drop of croton oil! This was followed a few weeks subsequently by an emulsion of creasote. Still later, at the suggestion of

[1] Measurements reported by parents.

friends, two attempts were made with emulsions of pumpkin seeds. In justice to all parties, it is proper to state that in every instance starvation and purgation with castor oil, castoria, etc., were rigidly enforced. This is confirmed by an incident in the history, when the little patient led his only sympathetic relative to the cupboard and with tears running down his cheeks exclaimed: "Grandpa, I'se so hungry! I'se so hungry!" Meanwhile, reports of the case had reached relatives in the East, who immediately sent out a quantity of pelletierine tannate, with assurances of success. Two trials of this specific (?) quickly followed bringing away a few feet of the worm as other remedies had done. A small dose of the pomegranate alkaloid remained, but in view of previous failures it had almost been decided to await the natural demise, or suicide (?) of the parasite at the end of four or five years.

The tenth and successful assault was reluctantly undertaken by the writer. Though I should have preferred kousso or koussin for a child, the remainder of the pelletierine was given.

Without special restrictions as to diet a full dose of jalap preceded the tæniafuge about twelve hours, and was repeated next day an hour or two after the exhibition of the anthelmintic. After thoroughly scotching the parasite, indicated by the appearance of large segments in the dejections, frequent enemata of plain and salt water were employed. Traction upon the worm was interdicted, but rather it was advised to strap the protruding extremity to the nates and continue injections. At a later hour the head intact and *erect* with fifteen feet of the tænia gave assurance of its unconditional surrender after a siege of nearly twelve months.

CONJUGATE DEVIATION OF THE EYES WITH MIDDLE EAR SUPPURATION.

Read before the Chicago Medical Society, Jan. 8, 1894.

BY OSCAR DODD, M.D.

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Upon June 13 last, I was called in consultation to see the following case, on account of the serious symptoms which had supervened three days before. The history of the case was given as follows:

John W., aged 18, had a discharge from his left ear during childhood. This had ceased and remained well until the present attack. After having influenza seven weeks ago, a severe otitis media on the left side with profuse discharge followed. Under treatment he was progressing favorably until three days ago when he had chills, severe pain in left side of head, dizziness and vomiting, since which time his temperature has ranged from one-half to three-quarters of a degree above normal, but has not exceeded that at any time. It was also noticed that the discharge was less profuse.

Condition Present.—Patient very weak, perspiring freely. Temperature 99 degrees. Pulse 120. Dizziness so bad he could not stand or walk alone, having a tendency to fall to left side, and the dizziness did not entirely disappear upon lying down. Moving or rising from the bed was always followed by a spell of vomiting. Pain over left side of head. Mastoid process normal in appearance and only tender upon pressure at one point behind meatus, corresponding to the antrum. Meatus filled with thick creamy pus tinged with blood. After removing this, a polypus about the size of a pea was seen projecting through a perforation in the upper part of the membrana tympani and covering a small perforation in the lower part. After removing the polypus with a snare the openings seemed large enough to allow a free exit for the pus. Upon examining the eyes I found that the movement of both to the right was defective but could be overcome by an effort.

June 14. The patient felt somewhat better, pain in left side of head had disappeared and the dizziness and vomiting were less severe. Temperature normal. Pulse slower. The eye symptoms were more marked, as they were unsteady when looking directly in front and could only be moved to right of median line with difficulty. No diplopia. Slight paresis of left facial nerve, more marked at lower part of face.

June 15. Patient improving but still very weak and dizzy upon moving. Both eyes were strongly deviated to the left side and could not be turned to right of median line. The impairment in movement was about equal in each eye when tested separately. There was no diplopia and none could be elicited by careful testing. Convergence seemed to be retained for objects when held to left side. Pupils normal in size and reaction. Vision was not perceptibly impaired. Field of vision normal. The paresis of left facial nerve had disappeared.

June 16. The condition of the eyes was the same as on previous day. Dizziness still continued but patient could walk without assistance. As the perforations did not allow a free flow of pus I enlarged the lower one by a horizontal incision.

The improvement continued and the dizziness and ocular symptoms gradually disappeared within a few days, so that when he called at my office, two weeks later, no trace of any ocular trouble could be seen. Vision was normal and movement of the eyes perfect. The discharge from the ear was less profuse.

The suppuration ceased about a month later, and nothing now remains of the ear trouble but a slight amount of deafness with tinnitus, the perforations having cicatrized.

The important question in the treatment of this case was the cause of the ocular symptoms. Were they due to an affection of the brain or the meninges, and if so, what was its nature; or were they only a reflex symptom from irritation of the auditory nerve? In favor of the former view were the severe general symptoms as the chills, fever, dizziness and vomiting; but considering the speedy termination of the symptoms after the local treatment and the peculiar muscular symptoms, I am of the opinion it was the latter.

In support of this view is the intimate connection of the auditory nerve with the nerves governing the movements of the eye, especially those of conjugate lateral movement. Associated lateral movement of the eyes is under the control of a single nucleus, that of the abducens or sixth nerve. This nucleus, besides supplying the external rectus of the same side, also sends fibers which, according to most authorities (Fuchs,[1] Morris[2]), join the third nerve of the opposite side and go directly to supply the external rectus or, as Gowers[3] believes, go to the nucleus of that portion of the third nerve supplying the internal rectus. This innervation is separate from that governing convergence, which is supplied by the nucleus of the third nerve.

A connection of the auditory nerve and the nucleus of the abducens has been demonstrated anatomically. S. Freud[4] describes a connection of the vestibular portion of the auditory nerve by curved fibers going directly to the nucleus of the abducens of the same side. Other authorities, as Politzer[5] and Gowers, consider the superior olivary body as the center for reflex movements of the eye, as it receives fibers from the auditory nerve and is directly connected with the abducens nucleus.

To show the direct connection of the movements of the eyes with aural vertigo, a number of physiologic experiments have been performed. Cyon[6] found that operation upon the semicircular canals of different animals gave different results. In rabbits they were manifested principally by movements of the eyes. He also found that they were not compensatory, but came directly from irritation of the nerve. Irritation or section of one auditory nerve would produce a strong deviation of the eyes to the same side. Upon section of the other nerve the deviation would cease.

Lucæ[7] experimented upon some of his patients by increasing the pressure in the tympanic cavity. He found that by increasing the pressure, lateral nystagmus was produced, and when still further increased

to 0.4 atmospheric pressure, the eyes were deviated to the same side.

Högyes[8] showed by a number of experiments upon animals that associated movements of the eyes and dizziness are produced by irritation of the endings of the auditory nerves. He considers that he has demonstrated a reflex cycle, consisting of the muscles of the eyes and the ampullary nerves, by which a reflex stimulation is transmitted from the labyrinth to certain ocular muscles. He found that movements were different according to the portion of the labyrinth affected, e. g., by irritating the horizontal semicircular canals or ampullæ, there was oscillation or deviation of the eyes in a lateral direction toward the irritated side.

Baginsky[9] also produced nystagmus and, when the pressure was increased, conjugate deviation of the eyes to the same side, by the injection of fluids into the tympanic cavities of young dogs. He believed that the symptoms were due to the increase of the cranial pressure, as the fenestræ were always ruptured by the force employed.

Besides these physiologic experiments, clinical observation has shown that pressure in the tympanic cavity and irritation of the auditory nerve will produce ocular movements. Kipp[10] saw nystagmus in three cases of middle ear suppuration. It could be produced at will by syringing the ear or touching the tympanic wall with a probe. Pflüger[11] saw a woman, age 65, with otorrhea accompanied by dizziness. There was a polypus in the posterior superior part of the meatus, partly attached to the wall of the tympanic cavity. Lateral oscillating movements of the eyes were always produced whenever this was touched with a probe or an attempt made to remove it. Cohn[12] reports four cases of nystagmus with middle ear suppuration. The eye movements could be easily produced by syringing or irritating with a probe. He considers the movements due to a reflex from irritation of the auditory nerve, the inflammation having rendered the endings of the nerve in such a condition as to make this possible.

C. R. Holmes[13] of Cincinnati, reports a case where conjugate deviation of the eyes to the left side, with severe dizziness and vomiting, lasted about two hours after an operation on the mastoid. The attic and antrum had been opened and the stapes mobilized with a probe. The eyes could be moved past the middle line by a severe effort, but would return at once to the extreme position toward the left.

Dr. Spear[14] of Boston, with the assistance of Dr. Chandler, acting upon the statements of Högyes that the semi-circular canals and the vestibular portion of the auditory nerve were a peculiar end-apparatus regulating the movements of the eyes, examined a number of ear cases with dizziness and unsteadiness of gait as to their ocular symptoms. The results of their investigations showed an intimate connection between the sixth nerve and the vestibular portion of the auditory nerve. All patients with dizziness had exophoria of varying degrees dependent upon the intensity of peripheral irritation.

One case, a strong, able-bodied man, had a post-nasal hypertrophy of the right inferior turbinated occluding the Eustachian tube, severe otitis media with a small perforation of the membrane, the exudate causing pressure on the fenestræ, unsteady gait, staggering forwards and to the right. He appeared to have complete paralysis of the internal rectus of the right eye with diplopia, as it was strongly deviated outwards and could not be brought to the median line. After applying cocain to the hypertrophy, in about ten minutes the patient could converge and walk naturally, and the pain in the ear and side of the head ceased. Another case with swelling of the turbinated and closure of the Eustachian tube had a divergence for which prisms had been given. Upon removing the obstruction to the Eustachian tube the movements of the eyes became normal. These cases were undoubtedly due to a spasm of the external rectus muscle from reflex irritation through the auditory nerve as Dr. Spear considered them. Why there was not deviation of both eyes instead of one is hard to explain, unless, as Gowers[3] states, there is a center regulating the conjugate movements of the eyes aside from the abducens nucleus, probably the superior olivary body, slight irritation of which only affects the external rectus, but when the irritation is increased the internal rectus of the opposite side and ultimately the head is deviated.

I have not taken into account here the large number of cases with conjugate deviation due to lesions of the brain, either in the cortex, corona radiata or nuclei. Knies[15] states that conjugate deviation to the opposite side may be produced by irritation of almost any portion of the cortex, but especially the cuneus or occipital lobe, the cortical center for vision, but if the lesion is sufficient to produce paralysis, the eyes will be deviated toward the affected side. But a cortical lesion in this case sufficient to produce a deviation toward the affected side would have been accompanied by some other symptom of paresis or paralysis or have affected vision to an appreciable extent. Of the large number of cases reported with conjugate deviation due to a cortical lesion they were all accompanied by some other symptoms such as deviation of the head, hemiopia or some affection of vision, and paralysis or paresis of the muscles of the opposite side of the body.

A lesion involving the pons or nucleus of the sixth nerve on the same side, could produce these symptoms alone, provided it was slight enough to only produce an irritation, but nuclear lesions are rarely so limited as that. It is not probable that a nuclear lesion could have been present in this case, considering the rapid termination and absence of later trouble.

A basilar meningitis would have affected the nerves during their course and the manifestation would have been that of a peripheral lesion. The sixth nerve would have been affected without the implication of conjugate movement, which is distinctly a cortical or nuclear manifestation.

The occurrence of the facial paralysis is of no special importance, as it occurs very frequently with middle ear suppuration from the extension of the inflammation to the Fallopian canal.

In reporting this case, I do it hoping that while it is unique (as I was unable to find a parallel case in the literature) it may be of service in calling attention to the fact that reflex movements of the eyes simulating paralysis or paresis, may be due to local affections of the ear. While the cases cited here only touch upon certain points, I think they are of service in justifying my diagnosis of a reflex spasm of the ocular muscles due to irritation of the auditory nerve.

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CAN TYPHOID FEVER BE ABORTED?

Read before the Mississippi Valley Medical Association, October, 1893

BY J. E. WOODBRIDGE, M.D.
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The answer echoed and reëchoed from the great thinkers of the profession we all love and practice, from all over the civilized world, is one prolonged and emphatic negative, nowhere more emphatically spoken than in the great representative body of American physicians—the AMERICAN MEDICAL ASSOCIATION. At its last meeting in the city of Milwaukee the original papers, the discussions on them, and the editorial comments in the Society's JOURNAL clearly indicate this, and that the medical profession is not at all agreed on its treatment. The most divergent methods were advised; some condemned what others strongly advocated, these again advising different methods, only to be condemned again, and all were finally disposed of by the editor of the ASSOCIATION JOURNAL, who under the caption, "The Treatment of Typhoid Fever," says: "In the topic which heads this editorial the medical profession is certainly as much interested as it is in the treatment of pulmonary phthisis. The able papers and discussions which we have presented to our readers in the columns of this JOURNAL, during the past few weeks, have been of great value as reflecting the opinions of active practitioners whose practical experience is of inestimable service to less favored colleagues, yet the fundamental rules governing the management of enteric fever are not modified by these expressions of opinions. Differences in belief may exist, as to whether intestinal antisepsis is desirable or obtainable in typhoid fever, and whether this temperature or that, is to be treated as a dangerous symptom; but the important fact, that enteric fever is a disease in which good nursing and watching are the real factors productive in bringing about recovery, is universally recognized. In typhoid fever, above all other diseases, the physician must recognize that a cure is impossible, that he can guide the patient through the storm, but not stop the storm, that the only object he may expect to accomplish is the control of symptoms which directly or indirectly affect the patient unfavorably.

"While he may not be able to remove the cause of the symptoms, the very relief may be advantageous; then a delirium indicative of great physical or mental distress, or the presence of some complication inducing pain, may so exhaust the patient's vitality as to seriously impair his chances of recovery, and measures directed to the relief of these symptoms may save the particles of strength needed to carry the case over some crisis in his attack. There is, therefore, no specific or routine treatment by internal methods which should be resorted to when the diagnosis of typhoid fever is established, but there are two external methods aside from feeding which may be applied to so nearly every case as to be called routine, namely: absolute rest in bed, flat on the back, and the use of the bath in a more or less modified form; a simple mixture designed to maintain free action of the kidneys or stomach may be advised in each case, chiefly to comfort the patient and his friends, but beyond this nothing is to be used without a distinct indication by some prominent symptom. The necessity of absolute rest in early stages of enteric fever is known to every one, yet it often requires the most strenuous efforts on the part of the physician, particularly if he is not aided by a trained nurse, to maintain the degree of rest necessary. If there is one factor potent in rendering a prognosis unfavorable in enteric fever, it is the neglect of this precaution in the smallest detail, and every rising to stool may be regarded as a most unfortunate cause of future trouble and danger. The use of the bath, or more correctly water in any form during typhoid fever stands next in importance and next in its approach to routine.

"It is a mistaken idea with many physicians that the water treatment of typhoid fever is solely indicated by high fever; nothing can be more erroneous. While high temperature is without doubt a most important indication for the bath treatment, extreme restlessness is also a positive reason for its employment.

"Farther than this, there can be no doubt that the use of water not only lowers extreme temperature, but prevents its rapid return, and in some way advantageously modifies nutritional changes.

"Restlessness and insomnia accompanying fever too slight to require the full bath, are often entirely relieved by a tepid sponging, which soothes the irritated skin, and equalizes the circulation, refreshing and invigorating the patient.

"Each part sponged should be immediately rubbed dry, so that the patient may not be relaxed by soaking. We presume this does not apply to the cases of high fever, in which friction with the hand must be used to bring the blood to the surface where it may be cooled. We have not tried to indicate in this article the medicinal treatment required by various complications, as space forbids, but we are sure that if these views are followed, complications will be less frequent and a firm basis maintained for rational measures sometimes necessary for the relief of accidents."

These are the expressions of the matured thoughts of the members and of the editor of the JOURNAL of that ASSOCIATION, of which one of the leading medical periodicals of Great Britain, a not too partial critic, said nearly a quarter of a century ago: "That it is probably the most learned medical body in the world." I do not believe the great AMERICAN MEDICAL ASSOCIATION has taken any retrograde steps, and I do believe that we may accept these opinions, emanating from its members and from the trusted editor of its JOURNAL as coming, not only from the most learned medical body, but as the expression of the most advanced opinions of the highest medical authority in the world. And yet these are not extreme views. Everywhere you turn in medical literature, you see the same dark and gloomy picture of typhoid fever.

Now and then a new remedy is proposed, or some

one advances slightly more hopeful views, but he and his futile hopes are soon buried in oblivion, and his hapless patient in the ground, and no one dares to say that the physician ought to or can, cure the disease.

I fully realize the responsibility he assumes who would undertake to criticise adversely the teachings of a hundred generations of thinkers. It is said that "old beliefs die hard," and the one I propose to endeavor to destroy has all the charm of extreme antiquity. Long before typhoid fever was isolated from typhus it was taught, as the great teachers now teach, that it could not be cured, but must run its course. Then a new era dawned—typhoid fever was recognized as a distinct disease, and yet the same theory was promulgated, and in almost the same language, used in the teachings of 1893. Time passed; the profession made most wonderful strides in the pursuit of knowledge. It was learned that many diseases, and among them typhoid fever, were due to, or at least accompanied, by a germ in some sense peculiar to themselves, and yet the same teachings were again handed down. Let us take them up with iconoclastic hands, and see if the pitiful story that typhoid fever can not be cured, may not be retold in a more cheerful vein.

On the seventeenth of July, last, I read a paper in my local society in which I said: "Those of you who were present at the meeting of this Society, held in my office twelve or fifteen years since, when this disease was under discussion, will remember that in criticising a paper on typhoid fever I said, that while the paper was in strict accordance with the teachings of the best authorities on the subject, that I thought it was so radically wrong that if you would leave undone everything the author said to do, and do everything he said not to do, you would be nearer my idea of the correct treatment of the disease; which I proceeded to give in detail. It was not, however, well received. The author of the paper condemned it most severely, but afterwards said in the Society that, although he had condemned the treatment in the very strongest language at his command, that I had set him to thinking, and he had searched his library for my authority without finding any; that there was nothing in the books bearing on my theory, but nevertheless I was right, and he would not now dare to treat a case of typhoid fever in any other way. I wish now to call your attention to a few cases, illustrating the most marked results of my work during the intervening years, selecting only such cases as were diagnosed by able physicians; bore such well-marked symptoms characteristic of, or were surrounded by such circumstances, as would indicate beyond the possibility of a doubt, that they were true typhoid fever.

At this point I wish to express my regret that of my earlier cases no bedside charts were kept. No idea had entered my mind of inflicting my theories upon an already over-worked profession.

The bedside charts of the later cases are in my possession and open to the inspection of any member. The limits of this paper will, however, only admit of the presentation of the most salient features of those cases which best illustrate a point. And in estimating the value of the cases, you will please bear in mind that none of the teachings of the editorial were followed in my practice. Patients were allowed to get up, or move about, or go out of doors at pleasure. Nurses, trained or untrained, were allowed to sponge them or not sponge them. No other baths were given, except to meet the ordinary demands of cleanliness.

Very little effort was made to "control symptoms." No "simple mixtures designed to maintain free action of the kidneys or stomach chiefly to comfort the patient and his friends" were ordered. No medicine was ever exhibited for the purpose of directly reducing temperature, and while the patient and his attendants were generally cautioned against the danger, real or supposed, of eating solid food, the warning was not always heeded, some eating on the seventh to twelfth day; others all of the time.

On July 17, 1882, I was called to see Dr. Ferran's son after the attending physician had made a diagnosis of typhoid fever. He made a complete recovery in twenty days. His temperature having been nearly normal for several preceding days.

A young gentleman died of typhoid fever on Rayen Avenue. Clara Potts lived in the same house and assisted in taking care of him. Three or four days later I was called and made a diagnosis of typhoid fever, and answering direct questions, I said she would probably be well in ten or twelve days. Later I was told that another physician had made a previous statement, that the girl had typhoid fever and would be ill four or five weeks at the least. Her temperature went up to 104¾. Tympanitis and rose-spots were well marked. She made a good recovery and drove out on the twelfth day.

The wife of one of our leading druggists, W. W. McKeown, had typhoid fever. She made a good though not very rapid recovery. Mrs. Johnson Wick and her son both had typhoid fever; recovery in eleven and fifteen days respectively.

Last winter when typhoid fever was so fatal at Beaver Falls, Mr. Louer, Jr., was brought home with the disease from which he recovered in twelve days.

Ulysses Speer was brought home from a boarding house in Wampum, where at least one death had resulted from typhoid fever. Dr. Wickham made a diagnosis of the disease and treated him three days, when I was called. I found a well-marked and typical case of typhoid fever with a history of ten days' sickness. Temperature 105 4-5; pulse 124; bowels very tympanitic, petechia abundant, tongue brown, hard and dry, stupor so profound that he could with difficulty be sufficiently aroused to show it. My first visit was made on October 25. The last on November 3, when he was sitting up. On November 10 he called at my office and settled with me.

When typhoid was so prevalent and fatal near the corner of Bryson and Spring Streets, I was called to see the two daughters of Jos. Dore, diagnosed as typhoid fever by a nurse of long experience in the disease; found both cases well marked. Both recovered in less than ten days. John H. Walker, who lived in the same locality made a good recovery in ten days. His symptoms were well marked.

Thomas Evans of Girard, came to my office. After examining him two or three times I told him he had typhoid fever. When he told me that his wife was very sick, I gave him medicine for her and himself and told him to send her to me as soon as possible. The next day I found her lying on the sofa in my office, having come by train five miles. Her temperature was 104¼; bowels very tympanitic and tender, and all symptoms pointed to a very severe attack of typhoid fever. She was told to come each alter-

nate day to my office, as was also her husband. The latter was permitted to work at his usual occupation, that of a stationary engineer, throughout his illness. After a few days, Mr. Evans told me that the doctors in Girard were laughing at him for going away from home to a —— fool of a doctor who would tell him that he had typhoid fever and could work. I asked him if they doubted his ability to work. He said: "No, they know I can work; they say I have not had typhoid fever." I told him that if that were true, when he and his wife recovered, that would be the end, while if they had typhoid fever there would be more cases around them. Within a few weeks thereafter, I was called in consultation to nine or ten well-marked cases along the Little Valley in which they lived, and all within a stone's throw of their home. After several had had hemorrhage of the bowels, and four or five had died, there was no further question as to the character of the disease.

The President of this Society can tell whether some of these cases were typhoid fever or not. So, also, can the distinguished ex-President of the Ohio State Medical Society now present. Mrs. Evans was not able to come regularly, but had occasionally to miss two days at a time. She was refused passage by one of the railroad companies, and had to travel by the less convenient route.

On May 8, 1893, I was called to see G. W. Powers near North Jackson (whose son had just died of typhoid fever after repeated hemorrhages of the bowels) and found that Mr. Powers (who had nursed his son thirty-five days) had himself been ill with typhoid fever seven days. I assured him that he was in no danger of dying and that he would probably be well in ten or twelve days. He had a normal temperature on the tenth day.

On May 27, I was called again to North Jackson to see Wallace Eckenrode (the son-in-law of the last case) who I believed had typhoid fever, a belief which was not shared by his family physician who promised if I would leave the case in his hands, to telephone me within two days. I heard nothing more of him until I saw the notice of his death, from typhoid fever, in the local paper.

Prior to the date at which this series of observations begins, I had had large experience in the treatment of typhoid fever with unsatisfactory results, and when I listened to the papers read in the Section of Practical Medicine, at the AMERICAN MEDICAL ASSOCIATION in Washington, I was reminded most forcibly of these earlier experiences, and my imagination pictured them in sharp contrast with the happier results of later years; and wishing that others might share with me the pleasure of curing so dread a disease, and that humanity might benefit by any knowledge I might possess, I told the Chairman of the Section, Dr. Victor C. Vaughan, that if possible I would prepare a paper and read it in the Section before adjournment, advising a more hopeful method of treatment. My work on the committee for reorganization of the Section, however, took so much time that the preparation of a paper was an impossibility. On the last day of the meeting Dr. Vaughan reminded the Section of my unfulfilled promise. I then said I hoped to be able to present the paper on the treatment of typhoid fever at the next meeting. Anxious to present a good array of aborted cases with their treatment, I availed myself of the opportunity of criticizing a paper on the treatment of typhoid fever, read in my local Society, and, after condemning some of the remedies advised as worse than useless, since they tended to aid the disease to destroy the patient, (a criticism justly applicable to many of the methods of treatment advised by some very learned professors) said, that having long believed the disease to be due to a germ whose earliest habitat in man was the alimentary canal, that the logical conclusion was that gastro-intestinal asepsis should be the prime object of treatment, and when it could be obtained the problem of the abortive treatment of typhoid fever would be solved; that I believed I had already attained it, and that if any member of the Mahoning County Medical Society would aid me in making a demonstration, I would not only provide medicine and treatment free of charge, allowing all fees to go to the said members, *but that I would pay him a dollar and a half for each day of treatment after the tenth.* I then consulted the President of the Ohio State Medical Society, as to the advisability of publishing a paper on the treatment of the disease, and was advised not to do so until I had demonstrated to the profession that the methods in vogue could be improved upon.

On receipt of a letter from the Mayor of the City of New York, I went there and spent a week seeking an opportunity to demonstrate the curability of typhoid fever, under the observation of some of the learned professors of the metropolis. Failing, I returned home discouraged. I tried Philadelphia next, and for ten days devoted myself to a fruitless effort to have some one give my method a trial without publishing a treatment that might prove valueless or misleading. Again I returned to my home, this time most heartily discouraged. Believing myself to be able to cure the most fatal disease of the Mississippi Valley, I did not dare to give to the world a treatment that on more thorough trial might prove to be a failure in the hands of more able but less enthusiastic practitioners, and the action of which I could not then and can not now explain. After this I corresponded with the health departments of all the principal cities in the United States and Canada, and to the honor of these gentlemen be it said, not one failed to give me all the information in their power; often at an outlay of great labor and no doubt considerable expense. I give them, one and all, most hearty thanks. During the intervening years, I visited the most important cities from Potomac to the Pacific coast. In Pittsburg, in St. Louis, in Washington, I gave the principals of the largest hospitals, where typhoid fever was treated, the best knowledge I possessed at the time. They politely promised to try it and probably forgot all I had said before dinner. In Chicago, I succeeded in interesting the Commissioner of Health, Dr. John D. Ware, who asked me to give him a letter that he could show to the superintendents of the hospitals, and as this letter and the answer may become, in the future, interesting reading I present them here:

YOUNGSTOWN, OHIO, May 5, 1892.

JOHN D. WARE, M.D., Commissioner of Health, City of Chicago.

My Dear Doctor:—You are well aware that in writing in fulfillment of my promise to you, and giving expression to my peculiar views of typhoid fever, I am winning for myself the uncoveted cognomen of "crank."

You will remember I told you that I believed the life of every uncomplicated case of this dread disease could be saved; that I believed the disease could be aborted, and that I believed the excreta from properly treated cases of typhoid fever would prove to be innocuous. Long before I

even hoped for such results I believed that the disease was due to a germ; that the germ was, in the earlier stages of the disease, confined to the alimentary tract; and that if the entire tract could be saturated with a germicide at once fatal to the germ, and harmless, or better still, beneficial to the patient, the happiest results would follow.

That I have for fifteen years been doing all this without having published a word about it, should not be a discredit to me since it has taken years of testing to satisfy even myself, and no one likes to have to eat his own words, especially after they have gone into cold type.

Now, Doctor, if you can, as soon as possible, secure a ward for male and one for female patients, with a day and night nurse for each ward, and give me as many cases as possible, none of which have had the disease more than eight days, I will go to Chicago and appear before a committee of your selection, consisting, of course, of members of the regular profession upon whose judgment and integrity you could rely; explain to them fully my plan of treatment, and if they find any medicine that I wish to administer is in the proper dose dangerous, they shall refuse permission to make the test, but for no other reason; you to invite any members of the regular profession, as many as you wish, to watch the patients from day to day, and if my test is entirely satisfactory I am to have the privilege of giving the treatment and the results of the test to the profession through the AMERICAN MEDICAL ASSOCIATION.

Very respectfully, JOHN E. WOODBRIDGE.

CHICAGO, May 27, 1892.

JOHN E. WOODBRIDGE, ESQ., 29 W. Federal St., Youngstown, Ohio.

My Dear Doctor:—Your letter of May 5 arrived while I was away from the Department sick. I did not return until the 20th, and have endeavored from that day to this to interview the physicians at different hospitals relative to the subject matter of your letter.

Replying I will say, I have visited the superintendents with whom I thought possibly I might prevail upon to coincide with our views relative to treatment of typhoid fever. I have also talked with some of the prominent men in the profession, and I believe without a single exception each and every one of them have said this: "Why does not Dr. Woodbridge read his paper before the NATIONAL ASSOCIATION next June?"

I have said all that I could say relative to the subject, which is one that I have become deeply interested in, but being only one man it has been impossible apparently to make any impression upon the members of the profession.

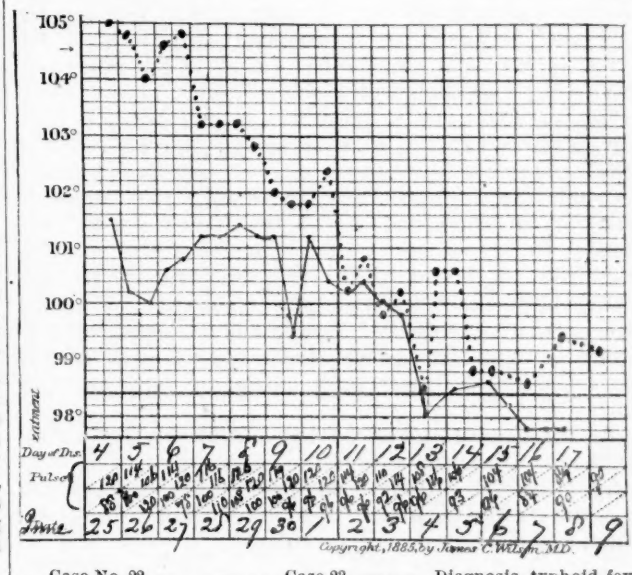
By reading between the lines you will probably understand more than is written. I do sincerely hope that you will read this paper before the NATIONAL ASSOCIATION as I believe that it would result in a revolution in the treatment of this disease. No one would dare question your paper so far as your results in the past have been concerned, no matter how skeptical they might be in some other matters.

Trusting that you will pardon the delay in replying, I am, sincerely yours, JOHN D. WARE,

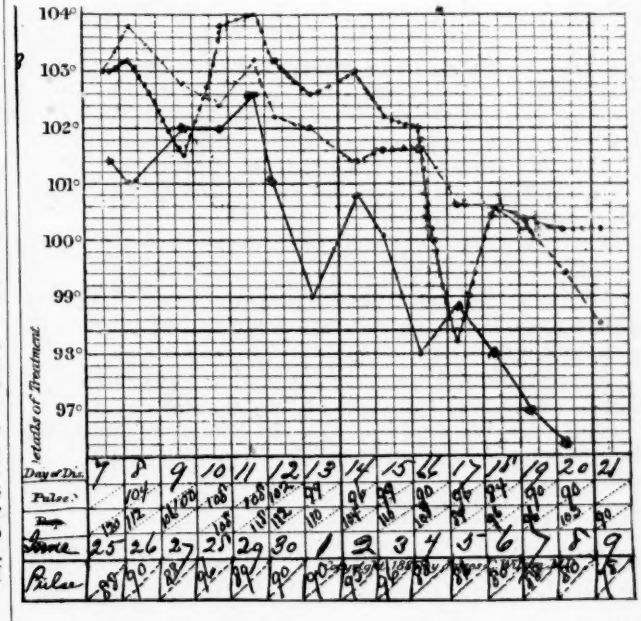
Commissioner of Health.

Finally, after having spent years of valuable time, much money, and traveled many thousands of miles, I heard of the epidemic of typhoid fever at Ironwood, Mich., and although I had been too busy to go to the Milwaukee meeting of the AMERICAN MEDICAL ASSOCIATION a few days before, I again sacrificed both time and money, and in a day was on my way to the scene of the worst epidemic of which I have any knowledge. It presented largely the characteristics and symptoms so common in our sporadic cases. In some cases, however, the poison seemed to be so virulent as to lead one to despair almost from the very outset. A good representative of this class was Miss T. S., No. 22, whose bedside chart I hand you.

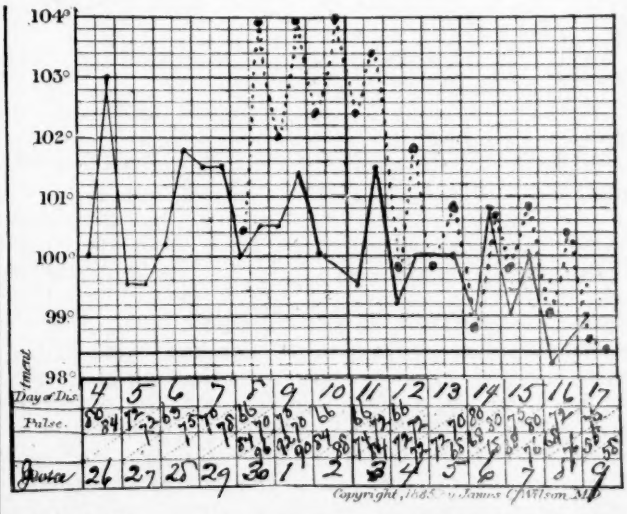
When seen on June 25, 1893, her pulse, as you will see, was 120; her temperature 105; her bowels were intensely tympanitic, marked dullness over the spleen, tongue dry, hard and brown, slight wandering delirium, which soon became so profound that we were unable to take her temperature under the tongue again for several days. Altogether her con-



Case No. 22, ... Case 23, .——. Diagnosis, typhoid fever. Names T.S. and P. S.



Case No. 25, .——.——. No. 27, ... No. 28, .————. Diagnosis, typhoid fever. Names, Mrs. S., Mr. S., Miss S.



Case No. 29. . . . . No. 30, .———. Diagnosis, typhoid fever. Names, J. A. and C. E, Cured in thirteen days.

dition was so bad that her attending physician, Dr. McLeod, a physician of marked ability, after the examination was completed turned to me and said: "You don't want that girl; she will die." I answered: "Not if I treat her." After our second or third visit, Dr. McLeod said, as we went away: "If you can cure that girl you are a dandy." Her temperature touched normal on the tenth day, but before she began to improve on the night of the third day, Dr. McLeod came to my hotel to tell me that she was exceedingly delirious, pulse 140, temperature, as well as could be taken in the axilla in her extremely restless condition, was $104\frac{4}{5}$, that her bowels were exceedingly tympanitic, and she was bleeding so profusely that he had to plug both posterior and anterior nares.

In the same room with T. S., No. 22, lay her sister, P. S., No. 23, taken sick at the same time; an equally typical though milder case; her temperature, as you see, was never high and was lower than normal on July 4, the ninth day of treatment.

The chart of Mr. F. S., No. 24, is very interesting as showing the result of treatment against continual reinfection. The case bade fair to be a very severe one, but the temperature of $103\frac{1}{5}$ of June 26, dropped to $99\frac{2}{5}$ on the 30th, and again rose on discontinuing treatment to $104\frac{4}{5}$ on July 2, when investigation showed that he was drinking water from a well from which a dozen very severe cases had originated.

Mrs. M. T., No. 25, temperature in the afternoon of June 25 was 103; the morning of June 26 was $103\frac{4}{5}$; was normal on July 9.

C. O., No. 26, on June 26, temperature 101; July 4, $98\frac{1}{2}$.

M. T., No. 27, on June 25, had a pulse of 120, temperature 103; on July 5 had a pulse of 84 and temperature $98\frac{4}{5}$.

Mrs. T., No. 28, on June 25 had a temperature of $101\frac{5}{10}$ which was reduced on July 4 to 98.

C. E., No. 29, on June 30 at 10:30 in the morning had a temperature of $100\frac{2}{5}$; in the evening the temperature was $102\frac{8}{10}$, and again at 8:15, $103\frac{6}{10}$, and on July 8 was reduced to $98\frac{3}{5}$.

J. A., No. 30, on June 26 at 7:30 P. M., temperature 103; on July 8 at 10 A. M., had a temperature of $98\frac{1}{5}$.

Mrs. L., No. 31, June 25, pulse 96, temperature 102; on July 5, pulse 72, temperature $98\frac{3}{5}$.

E. T., No. 32, June 25, temp. $101\frac{3}{5}$; on July 8, $98\frac{1}{2}$.

Mr. M., No. 33, June 25, in the morning temperature 102 and July 9, $98\frac{1}{2}$.

A. O., No. 34, June 28, pulse 120, temperature $103\frac{4}{5}$; July 8, pulse 72, temperature $98\frac{3}{5}$.

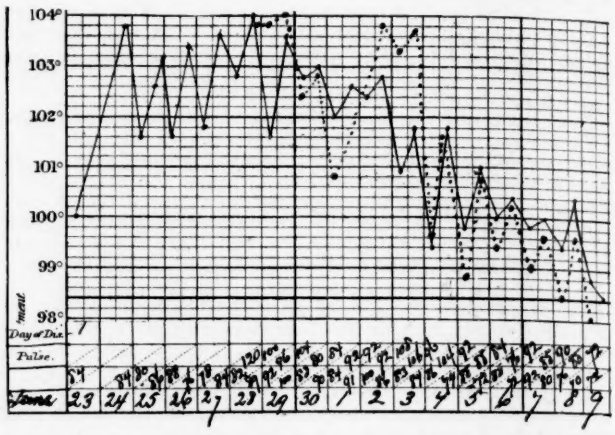
E. O., No. 35, June 23, temperature $103\frac{8}{1}$; July 9, $98\frac{8}{10}$.

G. T. G., No. 36, admitted June 26, highest temperature 104; July 9, temperature 97, pulse 76.

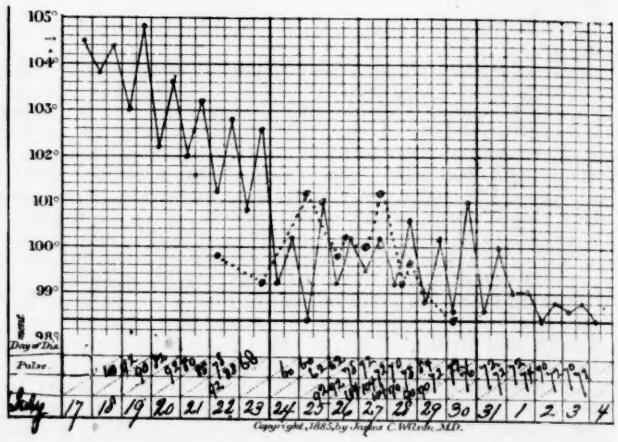
John A., No. 37, chart says that he had been sick three days when admitted on June 24. His treatment may be regarded as a failure. His temperature was $100\frac{6}{10}$ when last seen on July 9. He had probably been ill longer than we had supposed.

We made two or three such mistakes. One of the cases selected on the supposition that he had been ill less than eight days, was found to be dying of perforation of the bowels when we went to him to administer the first dose of medicine. Another case, after having been put under the treatment, showed conclusive evidence of having been well along toward perforation; died a few days later.

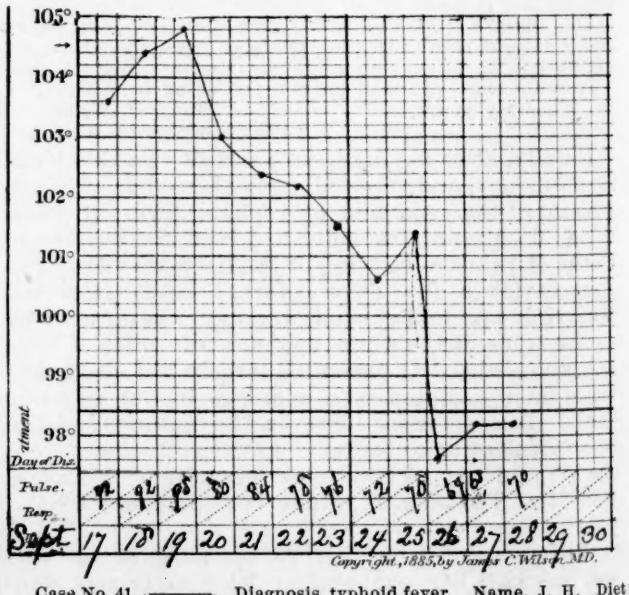
These records were kept by the physicians attending the patients, and by the trained nurses in the Typhoid Fever Hospital. The physicians were all gentlemen of unusual ability, and of very large



Case No. 34, ... No. 35, ———. Names, A. O. and E. O.



Case No. —, ... No. 38, ———. Names, E. M. and Mrs. M



Case No. 41, ———. Diagnosis, typhoid fever. Name, J. H. Diet: Ate beefsteak on the seventh and eighth days of treatment, milk diet on the ninth, and solid food thereafter.

experience in the diagnosis and treatment of typhoid fever. Dr. McLeod, the able Superintendent of the Union Hospital, is a gentleman who would be an

ornament to the profession of the world's most enlightened capitals. Dr. Niven, the Health Officer of the city, is a gentleman whose skill and ability were factors of prime importance in fighting this fearful epidemic. Under his magic touch, the conception of to-day became the finished work of tomorrow, and the Armory, resounding to-day to officers' commands, became a hospital for typhoid fever, perfectly equipped under his able superintendence, and instead of echoing to the soldier's martial tread, the soft footfalls of a corps of trained nurses scarcely broke the silence. It is enough to say of the nurses that they were trained in the city of Chicago, and it was the freely expressed opinion of both physicians and nurses that they had never seen typhoid fever patients do so well or feel so well. I present here a letter voluntarily handed me by Dr. Niven:

IRONWOOD, MICH., July 9, 1893.

This is to certify that all the patients whose bedside histories are in the hands of Dr. Woodbridge, were diagnosed as typhoid fever by Drs. McLeod, Niven, Holmes and Woodbridge, in the city of Ironwood, State of Michigan, and that they were all under Dr. Woodbridge's special treatment, no other medicine being exhibited during their sickness.

I also can state that in no case did any serious condition arise, as did in other cases treated side by side by the same physicians with the older, most approved methods of modern treatment.

J. K. NIVEN, M.D.,
Health Officer of the City.
Physician-in-Charge of Typhoid Fever Hospital.

On the day my paper was read in my local society, I was called to see Ed. M., No. 38, whose chart is offered. I found him with a temperature of 104½. The next day it was 104 2-5, and the day following, 104 4-5, from which time it gradually declined to normal the morning of the eighth day, although he had a slight rise of temperature for several days thereafter; he walked out on the eighth day; ate a slice of bread on the tenth day for supper. For breakfast on the eleventh day ate two slices of bread, two eggs and two cakes, and continued eating heartily from that time.

On July 24, his little son was taken sick and on examination gave the following register: temperature 104 which rose to 105, pulse 112 which was at one time 160, his bowels became intensely tympanitic, petechia appeared in profusion, and all symptoms pointed to an exceedingly severe attack of typhoid fever. Turning to Mr. Madden, with the thermometer in my hand indicating a temperature of 105, I said: "Fifteen years ago, had you been lying there with typhoid fever, your wife showing well-marked symptoms of the disease, and these symptoms present in this boy, I should have said sadly: 'he is very ill with typhoid fever; he will probably be sick four or five weeks or longer;' and if asked for a prognosis would have said: 'he is in great danger;' now I cheerfully say: 'He has typhoid fever; will probably be sick ten days or two weeks and may be mildly sick somewhat longer. There is no danger.'"

These cases were examined at various times by Dr. H. H. Hahn, Dr. Thomas, and Dr. Gibson, President of the Mahoning County Medical Society, and positively diagnosed as typhoid fever. You will find their statements on the charts.

On Aug. 11, 1893, I was called to see Lizzie, No. 39, who had been sick a few days prior to August 1 when she first consulted a physician, who reported a temperature of 103 on that day, and treated her four or five days, when another physician was called who had not fully made up his mind whether she had typhoid fever or not. When I was called I found a temperature of 104½; I hesitated whether to attempt antiseptic treatment at so late a day; for six days the afternoon temperatures were 104½, 103½, 103¼, 102 3-5, 101¼, 101 1-5, when the evening temperature was 100 1-5. The improvement in the patient's general condition, however, was greater than the fall in temperature would indicate. She became cheerful, complained of hunger, and wanted to get up; the bowels which were tender and very tympanitic lost for a time all tenderness and tympanitis. Both, however, returned in a slight degree after a few days, and the temperature remained above normal for two or three weeks, all antiseptic treatment being abandoned after the twelfth day. This case is interesting as showing the effect of what I believe to be germicide treatment, even when too late to abort the disease. While visiting this patient I was called next door to see the daughter of ex-Marshal Crowley, symptoms of typhoid fever well marked, temperature 103, pulse 112. She recovered in less than a week.

On Sept. 17, 1893, I was called to see J. H., No. 41, positively diagnosed as typhoid fever by three or four physicians. His symptoms were well marked, and petechia very abundant. His pulse and temperature ran a very common course; I give them daily under the dates: September 17, temperature 103 3-5, pulse 92; September 18, temperature 104 3-5, pulse 92; September 19, temperature 104 4-5, pulse 98; September 20, temperature 103, pulse 80; September 21, temperature 102½, pulse 84; September 22, temperature 102 1-5, pulse 78; September 23, temperature 101½, pulse 76; September 24, 100 3-5, pulse 72; September 25, temperature 100 3-5, pulse 70; September 26, temperature 97 3-5, pulse 64; September 27, temperature 98½, pulse 68; September 28, temperature 98 1-5, pulse 64. On September 29, this patient's brother living in the same house was taken ill and is now lying sick with typhoid fever. I will give his chart in a future paper, as also six or eight other cases now under treatment.

On Sept. 23, 1893, I was called to Washingtonville, to see William Walters, sick with typhoid fever, diagnosed by his attending physician, Dr. Powers, confirmed by Dr. Bertelott in consultation. His temperature was normal on the twenty-ninth, and so continued to the last.

These cases comprise all of the worst cases and worst results I have had in my private practice for more than twelve years, during which time I have had no death from typhoid fever, and I have had a large number of cases recover in from three to twelve days without showing pathognomonic symptoms of the disease. I therefore believe thoroughly in asceptic-izing the alimentary canal at the earliest possible moment in all suspicious cases.

Keenly alive to the ignominy and disgrace that await me, should future observations contradict the results and conclusions of the past; aware too of the danger of the too implicit reliance on a limited number of observations, and with all due respect for the teachings of the great thinkers of the profession, whose wisdom has with strange unanimity taught the contrary, I yet wish to answer my question: "Can typhoid fever be aborted?" in the affirmative.

ACUTE INTESTINAL OBSTRUCTION—ANASTOMOSIS WITH MURPHY'S BUTTON—RECOVERY.

BY A. H. CORDIER, M.D.

CLINICAL LECTURER ON GYNECOLOGY KANSAS CITY MEDICAL COLLEGE; MEMBER AMERICAN ASSOCIATION OF OBSTETRICIANS AND GYNECOLOGISTS, ETC.

KANSAS CITY, MO.

Henry Binford, Nashville, Tenn., age 22. Some two years ago this young man had an attack of peritonitis, the origin of which, from his vague history, I am unable to obtain. Since that time he has had to be very careful with his diet, lest he bring on an attack of "colic." He has a slight "pulmonary trouble," leading to a suspicion of a tubercular peritonitis origin. On November 5, 1893, while on the street, he was taken with a severe pain in the region of the umbilicus, the intensity of which caused him to consult Dr. Chas. Lester of this city, who prescribed the usual antispasmodics and anodynes to relieve an intestinal colic, due to indigestion, and directed him to go to bed. The pain continued with unabated severity, and the doctor was called to see him, and prescribed salines to rid the bowel of the offending agent causing the suffering. His previous attacks had been of a similar character, indicating that there existed, and had for at least two years, a partial intestinal obstruction. (About 68 per cent. of the complete cases show previous manifestations of the existence of an incomplete constriction, and 32 per cent., previous history of peritonitis).

The Epsom salts brought no results and the pain continued with increased severity, accompanied by marked prostration, a tympanic abdomen, etc., evidences of injury to the abdominal sympathetic system, and paretic or obstructed bowels. The bowels refusing to act, large enemas were given with the result only of emptying the colon of gas and some fecal matter. He remained in this condition, continually growing weaker, up to the time I was called by Dr. Lester to see him. I found him with the peculiar pinched-looking countenance so often seen in intra-peritoneal injuries or acute inflammatory conditions. His temperature was 97; pulse 120, when I first saw him. This was November 15. Had been vomiting fecal matter frequently. An operation for the relief of the obstruction was advised at once, but valuable time was wasted in telegraphing his relatives in Nashville, Tenn., for advice as to whether the operation should be performed at once or delayed until their arrival.

I saw the case again the next day, and we decided that if anything was to be done it must be done at once or not at all, regardless of the absence of his relatives. At this time, November 16, he had well-marked evidences of intestinal perforation, as the liver dullness was absent, and his condition was that of shock. Temperature, 96.5 F.; pulse 140; delirious. I operated as soon as he could be removed to the hospital, Drs. Griffith and Lanphear assisting. Dr. Lester administered the anesthetic, ether, one-tenth grain nitrate strych. was given hypodermically, before beginning the ether. Every preparation was completed before administering the ether, that the anesthesia might be short, as these cases bear "chronic surgery" and prolonged anesthesia badly.

A median incision was made. On opening the peritoneum, intestinal gases with some fecal matter escaped through the incision. The bowels had perforated some time before, as evinced by absence of liver dullness and symptoms of profound shock, before the operation. The bowel above the stricture had partially emptied itself into the peritoneal cavity. A paretic intestine does not contract rapidly when opened, and in these cases there is always partial paralysis of the bowel above the constriction. Some little difficulty was experienced in keeping the bowel from rolling out through the incision.

Many recent adhesions were found in the pelvis and right inguinal region. I found a very hard vascular band running from near the right internal inguinal opening, attached to the abdominal parietes, running upward and inward toward the umbilicus, crossing a coil of the ileum and attaching itself to a coil of the small bowel higher up. It was at this point that the perforation was found—due to the taut state of the band. The band being anchored at one extremity and pulled on by the enormously distended bowel to which it was attached, and across which it pursued its course, caused the walls of the gut to give way at its intestinal attachment.

My diagnosis had been strangulation by a band of a coil of the ileum. Coils of the ileum, from their location in the pelvis and proximity to the appendix, are more likely to be strangulated by bands than other parts of the intestinal tract. This is easily understood in the present pathologic knowledge of pelvic peritonitis and inflammatory diseases in the region of the vermiform appendix.

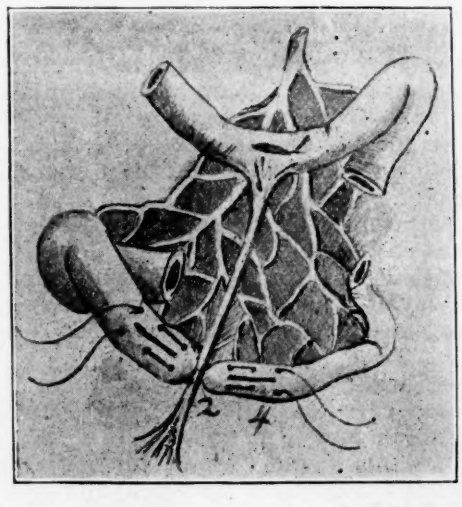
It was at the point where the band crossed the ileum that the stricture was found. The constriction was circular and complete and of long duration, the complete occlusion being of late origin. In these old partial strictures from a band or other cause, if for any reason there be a rapid and large increase of the gases in the gut the pressure thus produced on the blood vessels may convert the case into an acute and complete obstruction.

After closing the perforation with silk I ligated the band in two places, and divided it between the ligatures, thus liberating the adherent and strictured gut, so that it could be brought up into the incision. I quickly decided to do an anastomosis (lateral) using the Murphy button. The strictured part of the gut being of a non-malignant character, it was left undisturbed.

The intestine was emptied by "milking" away from the stricture, and the Murphy clamps applied to the convex borders or surfaces of the bowel, above and below (three inches). Having introduced the "puckering" sutures the stricture was incised, button halves introduced, ligatures tied about the stems and the halves clasped together. "I pressed the Murphy button, and left it to do the rest." (See cut).

The peritoneum was thoroughly irrigated with gallons of hot sterilized water, and a drainage tube introduced to the bottom of the pelvis. The patient was put into a warm bed and the nurses instructed to empty the tube each half hour.

No morphin. During the thirty minutes occupied in doing the operation he took very little ether. At no time following the large dose of strychnia (one-tenth grain) was there any muscular twitching.



1.—Site of intestinal rupture. 2.—Location of stricture.
3.—Band taking its origin at internal inguinal ring.
4.—Location of lateral anastomosis.

It was noticed during the operation and after clasping the button, that the larger gas-filled gut above the stricture contracted enough to empty itself, (in part), through the stem of the button, into the bowel, below the stricture. The glass drainage tube continued to do its work, by removing the septic material as fast as it gravitated to the bottom of the pelvis.

Up to the morning of the 18th, when at two o'clock, during the absence of the nurse he pulled the tube out, his temperature was normal. Within six hours from that time it rose to 103 F., and his pulse increased from 84 to 120, showing that the drainage tube does drain, and that patients may suffer much risk when the indications for its use are present and are not heeded.

I cut the sutures in lower angle of the wound (abdominal) and with a tissue forceps introduced into abdomen through the tube opening, dilated the incision and irrigated the lower peritoneal cavity with hot boracic acid solution, and finished with pure peroxid of hydrogen, introduced strips of iodoform gauze as far as possible, to act as a capillary drainage—a poor substitute for the glass drain. The tube could not again be introduced without guiding it to the bottom of the pelvis with the fingers. This would have necessitated the administration of an anesthetic.

After the washing his temperature fell to 99.5 F., and pulse to 96, but his bowels were distended with gas and caused him much pain. This was relieved by a large warm water enema to which was added two or three drams of turpentine, and an ounce of glycerin. This enema brought large quantities of gas and copious liquid stools. The first movement of the bowels took place three hours after the operation. He was from the day of the operation ordered nutrient enemas each four hours. Liquid diet.

Following the removal of the tube he became quite delirious, and remained so for two days. The protracted vomiting, so prominent at the beginning of his illness, ceased from the day of the operation.

There are several features in this case deserving special notice, as to the etiology, history, pathology, treatment and sequelæ. As a causative factor of the original attacks of peritonitis, appendicitis may have been its source, but I am inclined to doubt this as a cause, as his history does not warrant such a conclusion. The appendix was perfectly free and sound. He had an attack of typhoid some years ago that may have given rise to a perforation at a Peyer's patch and led to a protective localized peritonitis, (adhesions) but recognizing the fact that a typhoid perforation usually takes place at a late stage of the disease, when the patient is in a poor physical state to resist such an accident, and that typhoid perforations are almost invariably fatal, I believe that this disease may also be justly eliminated in the consideration of the causes. I could obtain no history of any injury, such as a kick, fall or blow.

Since early childhood he has had the habit of biting his nails and swallowing the little sharp pieces, and to this dangerous practice of taking into the stomach these sharp and indigestible foreign bodies, I am inclined to attribute his former attacks of localized peritonitis, and the invariable after and dangerous adhesions.

His history of recurring attacks of colic, and other symptoms of a partial intestinal occlusion, may be easily understood when one is acquainted with the symptoms of a partial occlusion from a band or stricture. Any undigested substance of a solid character may produce by its presence at the site of a partial occlusion, a complete obstruction, or by its presence act as an irritant, thus producing an inflammatory edema, or obstruction to the return flow of blood, and convert an incomplete into a complete occlusion. An intestine distended with gas in a case like this, may, where the band is anchored, by pulling on the band, produce a complete strangulation or occlusion of the intestinal canal.

It is worthy of note that the adhesion had produced a rupture at its intestinal attachment, and that fecal matter and intestinal gases were set free in the peritoneal cavity. It is rare for the peritoneum to tolerate the presence of this form of septic material, for as many hours as elapsed in this case from the beginning of the attack to the period of the operation. It is remarkable that the contractile powers of the semi-paretic gut were regained so soon after the operation. The post-operative history of the case illustrated that the nausea and vomiting in strangulation of the intestines is due as much to the non-elimination of septic material in the bowel, and to the great distension of the intestines, as to the injury sustained by the sympathetic system at the point of constriction, as is claimed by some authors. The results of the treatment in the case, lend encouragement to operate on all cases of a like character, regardless of the seemingly unfavorable, and almost hopeless general condition of the patient. The utility of drainage was demonstrated by the bad symptoms (temp. 103 F.) following the removal of the tube by the patient, and the good results that may be obtained by early flushing, in a threatened septic invasion of the peritoneum.

The Murphy button undoubtedly was the best device to use in this case, as the time occupied in doing the operation was of vital import to the patient, in his desperate state.

The stricture, being non-malignant, was left. That portion of the bowel between the location of the button and the stricture will soon atrophy, and by its presence cause no harm. The button, up to the fourth week, has not passed. Its non-soluble character is, in my mind, quite a serious objection to its use. Should the button at any time give rise to alarming symptoms by its detention in the bowel, its removal by another operation will come up for consideration. It could be done by dividing the gut near the location of the button, and removing it through the slit, and closing the opening with a few Lembert sutures.

The diagnosis of intestinal obstruction by a band was made by Dr. Lester before I saw the case, and an operation urged by him early in the attack.

GASTROSTOMY BY WITZEL'S METHOD FOR PRIMARY CANCER OF THE ESOPHAGUS.

Read in Philadelphia Academy of Surgery.

BY WILLIAM W. KEEN, M.D.

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The patient, S. S. aged 48, occupation puddler in rolling mills, was admitted to the Jefferson Hospital July 31, 1893, at the request of Dr. A. G. Miner of Niles, Ohio. His father died of asthma, his mother of cancer of the breast. He has always had good health with the exception of an occasional brief attack of rheumatism. For the past thirteen months he has experienced trouble in swallowing; seven months ago he could swallow solid food without much discomfort, but now can swallow nothing but liquids. He states that the constriction came on gradually and that he noticed from time to time the lessening of the caliber of his esophagus. When he takes nourishment he feels first an impediment to the passage at a point corresponding to the sterno-clavicular articulation; then the food passes with comparative ease until it reaches a point which corresponds to half an inch above the lower end of the ensiform appendix. Here he says he can feel a distinct obstruction, and while the food is passing this point he experiences pain in the median line posteriorly, under the inferior angles of both scapulæ (more severe under the left), in the epigastric region, though slight, and in the precordial region. The pain is darting in character.

During the past four months he has had slight attacks of hematemesis. On July 27, 1893, he lost considerable blood, enough to make him faint, but he attributes this to the introduction of an esophageal bougie. He has had gradually increasing emaciation, and has lost forty-nine pounds in the last thirteen months, his weight in June, 1892, being 168 pounds, and in July, 1893, 119 pounds. During the last ten weeks he has had œsophageal bougies passed

twice a week. On July 31 I passed a No. 3 rectal bougie through the stricture.

He has never swallowed any corrosive fluids, and has had no traumatism. He does not indulge in alcoholic stimulants stronger than beer, and limits this to two or three glasses a day. He denies all history of syphilis. His appetite is impaired, tongue coated and bowels constipated. The urine is negative.

There was a resistance in passing the esophageal bougie (circumference 4.2 centimeters) at ten and a half inches from the teeth, and at twelve inches the bougie would not pass.

Operation, Aug. 2, 1893. An incision four inches long was made, beginning at the middle line and running to the left, a finger's breadth below the border of the ribs. The muscular fibers of the rectus were separated by the fingers and not divided. The liver was seen as soon as the peritoneal cavity was opened. Two fingers thrust in, however, very readily seized the stomach. This was brought forward and outside the wound, the margins being packed with gauze. A rubber tube, five inches in length (Size 25, Fr. catheter scale), was introduced into the stomach and infolded by two rows of Lembert sutures, after Witzel's method. The opening in the stomach was made toward the cardiac extremity and the tube lay parallel to the external wound, its external end emerging near the median line. Three stitches were now inserted into the walls of the stomach but not tied before it was returned to the abdomen, their needles being left threaded. As soon as the stomach was returned these needles were thrust through the abdominal wall and the stomach brought up to the margin of the opening. The tube was retained in place by a catgut stitch passed through the wall of the stomach and through a part of the wall of the tube so as not to open its caliber. About one inch of the tube was thrust into the stomach. The edges of the abdominal opening were now sutured by silkworm gut and the ordinary dressing applied. A clip was placed on the tube to prevent the escape of the contents of the stomach.

Sept. 28, 1893. The patient made an excellent recovery, without incident, excepting in one respect. On the second day after the operation the dressing became twisted in his movements in bed, and the tube was pulled out of the stomach. In order to replace it I was obliged to cut three stitches in the external wound. When the tube had been replaced these stitches were re-inserted. Apparently, however, such adhesion had formed that no harm was done by this accident excepting to delay the closure of the wound.

By the middle of September he began to expectorate some bloody mucus, presumably coming from the ulceration of the carcinoma in the esophagus. He has gained about four pounds in weight, however, since the operation. For some weeks he has been unable to swallow even a mouthful of water. What nutritive gain there is from feeding, I presume has been almost counteracted by the progress of the disease. Immediately after the operation he was fed for two days by rectal enemata. Then I began with small amounts of milk, poured into the stomach through the tube. This feeding has been gradually increased, until at the present time his daily food may be summarized about as follows: Milk, two quarts; beef, mutton and chicken broth, each about twenty ounces; and a dozen eggs. This is varied by substituting gruel, thin custard and other similar food. He is walking about with much comfort. The tube is held in place by a gauze dressing, which in turn is retained by rubber adhesive plaster on each side. This is laced through eyelet holes. No escape of the gastric contents has taken place alongside of the tube.

Nov. 1, 1893. The patient is still doing well three months after the operation. There is absolutely no leakage whatever.

Greig Smith states that the operation of gastrostomy was first proposed by Egebert, a Norwegian surgeon, in 1837, received its name from Sedillot, in 1846, but had a very unsatisfactory history and development until the time of Sidney Jones of St. Thomas' Hospital, London, in 1874. Since then it has made rapid progress in favor in the profession, and a variety of different methods of its performance have been devised, until now its technique is presumably so satisfactory that but little improvement can be made upon it. The conditions which demand the operation are, of course, any cause which prevents the introduction of aliment into the stomach by the mouth, for instance, stricture of the esophagus from any reason, whether by cancer, cicatricial constrictions from caustics, etc., occasionally from the pressure of extra-esophageal growths, from malignant disease in the mouth or pharynx. Whitehead[1] has reported a case in which gastrostomy was done on account of obstruction due to a diverticulum.

There are practically five methods by which gastrostomy is done.

1. The method originally proposed by Egebert, and modified in its details by Fenger and Howse.[2] In this an abdominal incision is made parallel with the border of the ribs, and the stomach is attached by sutures to the abdominal wall. Two sutures are placed in the wall of the stomach in order later to identify the exact position for puncture (Bryant), and the stomach is not opened until the third or fourth day. This method has given rise to so much trouble, however, especially from leakage, that various devices have been employed for the purpose of preventing this annoyance, which, in consequence of the irritation from the escaping gastric juice, caused widespread eczema or even ulceration. Handford[3] notices, for instance, "a hernia-like protrusion of the mucous membrane of the stomach from the fistulous opening, forming a red, mushroom-shaped, insensitive mass, nearly two inches in diameter. This was easily replaced, but led to constant leakage of the stomach contents." Moreover, it is very important to observe that in Whitehead's case, above alluded to, the postmortem showed that the adhesions of the stomach to the abdominal wall had so loosened by traction that they were very slight indeed when the patient died, six months and a half after the operation. Hence, the importance of secure suturing of the stomach to the abdominal wall, as I believe I have obtained in my own case by suturing the stomach to the abdominal wall.

2. The method of Von Hacker.[4] This operator proposed to use the belly of the rectus muscle as a sphincter. In the first method of operating, fibers of

1 Lancet, 1891, i, p. 11.
2 Heath's Dict. of Surg., p. 590.
3 Lancet, 1891, ii, p. 988.
4 Wein. Med. Woch., 1886, Vol. xxxvi, 1073-1110, and Wien. klin. Woch., 1890, p. 693.

this muscle are divided by a transverse incision. Von Hacker proposed to make a vertical incision and a blunt dissection of the belly of the muscle, hoping that the rectus fibers would thus act as a sphincter. Girard[5] modified this by crossing the fibers of the muscle so as to form a more efficient sphincter. Von Hacker himself has been obliged to use the Scheimpflug canula in order to prevent leakage.

3. The method of Hahn.[6] In this a return is made to the original transverse incision, but a second incision is made in the eighth intercostal space. The stomach is drawn through this space, and fastened there between the cartilages. In addition to the danger of possibly opening the chest, necrosis of the cartilages has taken place, although Hahn affirms that there is no danger either to the diaphragm or the pleura. He believed that the cartilages of the ribs acted like a sphincter or stopcock.

4. The method of Witzel.[7] In this method the abdominal cavity is opened, the stomach drawn out, and a moderate-sized rubber tube is inserted into the stomach toward the cardiac extremity, through as small an opening as will admit it. The gastric end is then buried for about two inches by two rows of ordinary Lembert, or Cushing right-angled sutures. The free end of the tube is then brought out through the abdominal wound, and is either fastened there, or possibly after a time may be removed and inserted as needed.[8] The great advantage of this operation is the ureter-like, oblique entrance of the tube into the stomach; and as is shown by the postmortem examination in one of Meyer's cases,[9] the result is a nipple-like protuberance into the caliber of the stomach, which will prevent effectually the escape of any fluids.

This seems to me to be by far the best method yet devised, as it is simple, moderately rapid, and, above all, as in the present case as well as a few others in which the operation has been done, it is effectual in preventing any leakage.

I did not immediately begin feeding the patient through the tube, as I deemed it safer, the patient being in very fair physical condition, to nourish him for a couple of days by rectal enemata. I did, however, introduce an ounce of milk into the stomach the moment the tube was inserted, in order to make sure that perforation of the mucous membrane, as well as the muscular wall, had been effected. I think it likely that in another case, with the courage born of experience, I should be disposed to nourish the patient by small amounts through the tube immediately after the operation. I wished to try with this patient a method which has been used by others, the effect of his chewing meat which had been previously finely hashed, and then washing it into the stomach through the funnel. This gives the patient the satisfaction of mastication and of taste, and at the same time mixes the saliva with the food before its introduction into the stomach. Although not a man of especially sensitive nature, the idea of doing this seemed to disgust the patient so much that he was not willing to attempt it. The result, however, shows that he has received sufficient nourishment to gain somewhat in weight. Whether his constant hunger, in spite of the nourishment taken, is due to the want of satisfaction of his sense of taste, I do not know.

(5) Frank[10] has reported still another method practiced in the clinic of Albert, in Vienna. After making the abdominal incision parallel with the costal cartilages, a narrow fold of the anterior wall of the stomach is drawn out of this wound. A second incision is next made through the skin, half an inch above the first and over the costal cartilages. After separating the skin from the underlying parts, the fold of the stomach wall is drawn out, first through the abdominal wound, then under the skin, and, finally, through the second opening, and is fixed there, the mucous membrane being stitched to the skin. Whether experience will show this to be more valuable and more easily done than the method of Witzel can not yet be determined. It is said that no leakage occurs. Of course, as pointed out by the author, it would not be advisable in cicatricial stricture of the esophagus, because the fistula could not easily be closed, should it be desired to do this at any time.

It is interesting to note that Zweifel[11] of Leipzig, has used the same process as Witzel in making an artificial urethra. This idea was suggested by Witzel in his paper. In a case of carcinoma of the urethra in a woman, Zweifel extirpated the entire urethra and part of the bladder, closed the latter viscus, and then by a supra-pubic cystotomy made an artificial urethra after Witzel's method.

The mortality of the operation was last collectively investigated by the late Samuel W. Gross.[12] At that time Gross collected 207 gastrostomies, with 61 deaths, a mortality of 29.47 per cent., with a prolongation of life, on an average, at the date of the last reports, of 83 days.

Comparing gastrostomy with other procedures, there were thirty-two cases of esophagostomy, with nineteen deaths; a mortality of 59.37, and a mean duration of life of fifty-two days. Nineteen internal esophagotomies, with 6 deaths, or a mortality of 31.57, and an average prolongation of life of 256 days. Five combined esophagotomies have resulted in 2 deaths, a mortality of 40 per cent., and a mean duration of life of 168 days. Five esophagectomies gave 3 deaths, a mortality of 60 per cent., and a mean duration of life of fifty days. Three retrograde divulsions all resulted in recovery, with a mean duration of life of twenty-two days.

In the case of Handford, already alluded to, some very interesting physiologic experiments were made. He introduced a small rubber tube attached to a female catheter into the stomach, and connecting it with a Marcy's registering tambour and clockwork revolving drum, he found the respiratory and cardiac curves well marked, but absolute absence of any peristalsis. This he accounted for by the adhesion of the stomach to the abdominal wall. Yet digestion was efficiently performed, probably due to the replacement of this motion by the movement produced by the heart and diaphragm. He observes also that "the rapid introduction of large quantities of food into the stomach, the absence of pleasure in eating and the normal perception of flavors are not incompatible with very perfect digestion and active nutrition." Fine division of the food determined its

[5] Corresp.-bl. f. Schw. Aertze, 1888, No. 11.
[6] Centralbl. f. Chir., 1890, p. 193.
[7] Centralbl. f. Chir., 1891, p. 601.
[8] I have thus tried to remove the tube temporarily in my patient but had to abandon it from the difficulty of its re-introduction.
[9] Annals of Surgery, 1893, Vol. xvii, p. 594.
[10] Wein. klin. Woch., 1893, No. 15.
[11] Centralbl. f. Chir., 1893, p. 785.
[12] Trans. of the Amer. Surg. Assoc., ii, 1885.

rapid and easy digestion. Lactic acid was found as early as half an hour after eating. Hydrochloric acid was absent until as late as two hours after the meal.

A PROPHYLACTIC MEASURE AGAINST ONE OF THE POSSIBLE CAUSES OF CANCER OF THE TONGUE.

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On the subject of cancer of the tongue many writers affirm that one of the predisposing causes is traumatism. This being true, the biting of the tongue during an epileptic fit, eclampsia, etc., or in making forcible traction on the tongue, is not without danger; a danger none the less terrible, even though the consequence lies in the future. Much of this injury, that can readily be avoided, occurs during the administration of an anesthetic when it becomes necessary, as is often the case, to pull the tongue forward. The customary practice being to seize that organ with a tongue or artery forceps, locking the handles to prevent slipping, but subjecting the portion of the tongue between the jaws of the forceps to injurious pressure. This, aside from the question of cancer, may be considered as being somewhat barbarous.

To overcome these objections, especially in patients during the administration of anesthetics, the writer devised a mouth gag and a method of holding the tongue with dry gauze. Both have been in use in St. Joseph's Hospital for some months, demonstrating that traction can be made on the tongue for an hour without injuring that organ in the least.

The mouth gag (Fig. 1) consists of a soft rubber wedge (or a metal wedge, covered each time it is used with a narrow ring cut from the end of a rubber tube). The wedge is thirty millimeters high, fifteen wide and twenty thick, measuring from bottom of grooves. The ridges along sides are three millimeters in height; they prevent lateral slipping. The wedge is riveted to a metal handle ten centimeters long, shaped like one blade of the O'Dwyer mouth gag, excepting that the lower part of handle is hooked to fit the side of the anesthetizer's hand. It is used as follows: When the patient is partially under the influence of the anesthetic place the gag in position, wedge between the jaws; the soft rubber preventing injury to teeth, gums or metal work as gold crowns, etc. The handle hangs perpendicularly at side of cheek, its weight holding it in position. But should patient struggle, or it is desirable to still further open his jaws, the anesthetizer presses downward with the side of his hand which rests in curve at lower end of handle.

Two things have now been accomplished. First—the teeth being held apart the jaws can not be locked, and the position of the tongue can at any time be examined or grasped and drawn forward. If mucus collects in mouth it can be removed without delay. Second—a clear air way is assured, an advantage in case the natural air passage is not free, as in catarrhal conditions. Again, the air passing through the open mouth dries the tongue and cheeks, somewhat, and the secretions which are so disagreeable, especially when ether is employed.

Method of using gauze to hold the tongue: The anesthetizer should never be without an artery forceps fastened to his gown, preferably one with jaws four millimeters long, slightly curved, with teeth ground dull. Pèan's curved jaw artery forceps are good, but a pair with jaws opening parallel are best of all, the curve being a help when mopping mucus from throat. Should it become necessary to draw the tongue forward, remove mask, taking forceps in right hand, pass it into the mouth, curve downward, grasp the tongue gently and without injury, at least one-half inch from the point, and lift it up. When the tip protrudes between the teeth, grasp it with a piece of dry gauze held in the left hand. The forceps are then removed.

Figure 1.

If traction is to be maintained for a short time only, it can be done with the fingers; if for many minutes or for an hour or more, a piece of dry gauze, fifteen centimeters square, is folded from side to side until it is two centimeters wide. This is passed around the tongue with the right hand, pressing it down as far from the top as possible. Then twist the ends together until the tongue is firmly grasped in the loop of gauze. Remove left hand and snap the forceps on the strip around tongue to prevent it untwisting. (See Fig. 2.)

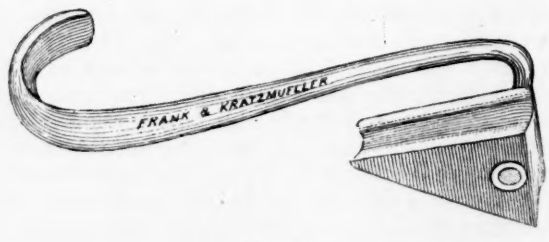

Figure 2.

One word of caution: If patient wishes to swallow or threatens to vomit, the tongue must be allowed to fall back.

For patients with puerperal convulsions a double mouth gag is made, by fastening a small rubber wedge on each end of a semicircular steel spring, the length of which can be regulated. The spring passes back of head, fitting the neck snugly and holding a wedge in each angle of the jaw.

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SATURDAY, FEBRUARY 10, 1894.

ANTISEPSIS IN OBSTETRICS.

"For all women in the perils of childbirth." . . . "We beseech Thee to hear us, Good Lord." So runs the liturgy of the Church of England and the Episcopal Church of North America, copied from that of the mother church of Rome; an echo from the Dark Ages, when the midwife was the only one who ministered to the wants of the suffering parturient, long before the practice of obstetrics became a science, and when the patient, if she survived the actual labor, had to face the risks of puerperal fever literally brought to her by the hands of those who meant to help her.

It will long be the boast of the nineteenth century that antiseptic methods in surgery and obstetrics first became settled truths in medical practice. Yet, in an editorial which appears in the *Charlotte Medical Journal* for January, 1894, we note the following passage: "It has appeared to me, when reading the various contributions of those who write so learnedly on the necessity of extreme antiseptic measures in parturition that they should ask themselves the important questions, Is the mortality of lying-in women any less by such means? Or is the death rate any less now than it was fifty years ago? If they do ask themselves these questions, they assuredly can not reply in the affirmative."

If the learned editor means by "extreme antiseptic measures" the antepartum and postpartum douching of the patient with an antiseptic solution, and the washing of the accoucher's hands in a similar solution previous to touching the patient, those obstetricians who advocate and practice the methods condemned most assuredly do answer the question in the affirmative and point to the convincing fact that, by the use of these methods, puerperal fever is far less common than in the days when DR. OLIVER WENDELL HOLMES wrote his immortal essay, showing so plainly the contagious character of the disease and the awful responsibility that rests on the physician.

A certain mortality there will always be from childbirth, but it should be due solely to the complications and should in no way be chargeable to dirt or neglect of cleanliness on the part of the attendant. One does not hear now-a-days of a lying-in hospital being closed on account of an outbreak of puerperal fever; even the old milk fever is banished from the lying-in chamber and the puerperium should be afebrile. The Preston Retreat, in Philadelphia, shows a record of over a thousand deliveries without a death, and antepartum and postpartum douching of patients with full antisepsis on the part of doctor and nurse is practiced there. Philadelphia has reason to feel proud of this institution's statistics, which lead the world, yet other maternity hospitals can show an almost equally good result. These are institutions built for this sole purpose and fitted up with the latest devices in the way of sanitary plumbing, etc., for the guarding from harm of those who are compelled in time of need to take refuge within their walls. If antisepsis is needed in such places, how much more is it needed in the homes of the rich where it is so usual to find a water closet immediately adjoining the bed chamber, or a wash basin connected with the sewer, in the room. The poor, while they may not possess these questionable luxuries of the rich, yet are equally exposed; how often is a bucket filled with filth found standing just outside the door of the room?

The puerperal woman is in one sense a surgical case. The vagina is full of minute abrasions, if not ruptured in places, and the opportunities for the entrance of septic material from without are numerous. The surgeon does not think his duty rightly performed if he leaves any avenue by which infection may reach his patient; why should the obstetrician? We have in the puerperal vagina a bruised surface, to a certain extent,—a wound—and it should be treated as such.

That the author of the editorial in question does not mean to entirely decry antisepsis is evident from another passage, where he refers to five hundred cases attended by him in which cleanliness proved sufficient. Yet, he admits one death from puerperal fever among the number. Cleanliness may be all that is necessary in the remote country districts, where the patient has pure air and plenty of it; where she is removed from the boasted civilization of the city, that carries with it venereal diseases and a possible infection from gonorrhea contracted by the husband in the days when he sowed his wild oats. An antiseptic douche in those cases where there is reason to suspect such infection certainly

lessens the risk and does no harm to the patient.

There is one other point—the baby's eyes. Contact with a purulent discharge may cost the sight of those eyes. An antiseptic douche during the early stages of labor lessens the danger. Take the statistics of our blind asylums and see the numbers of inmates whose blindness is due to ophthalmia contracted at birth. Take the statistics of fifteen or twenty years ago and compare them with those of to-day. There are fewer cases. Why? Partly because more physicians have recognized the importance of the antepartum douche. Is it right that by any omission on the doctor's part the child should be deprived of the light of God's sun and (in the case of the poor), made a charge upon the State for support through life? The antepartum douche is not troublesome and does not in reality lessen the vaginal secretions, to any appreciable extent, and so interfere with the progress of labor, as has been charged against it.

As an opposite to all this, is the extreme to which antiseptic midwifery has been carried in certain quarters. This it is which the editorial mentioned apparently means to warn against. The scrubbing of the vagina with antiseptics, accompanied as it must be with an amount of friction which abrades the delicate mucous membrane, does interfere with the natural secretions of the part and adds to the dangers to be averted. This is meddlesome and bad, but the simple ante- and post-partum douche can do no harm, when properly given, and may save the life of the mother and preserve the brightness of her baby's eyes, instead of sending it through a darkened life a living evidence of some one's negligence.

RECENT APPLICATIONS OF GUAIACOL.

Some recent clinical applications of guaiacol invite a consideration of its chemic and therapeutic relations. "Guaiacol is a substance that occurs in wood-tar,and is also produced by heating pyrocatechin and potassium methyl-sulphate to 180 degrees, C. It is a colorless liquid that boils at 200 degrees, C., and has a specific gravity of 1117. It is readily soluble in alcohol, ether, and acetic acid, and is recommended instead of creasote in pulmonary tuberculosis."[1] This substance is a prominent constituent of the best creasote, into which it enters to the extent of about 60 per cent., although in the cheaper kinds it may be much less than this. Along with the guaiacol, are associated a number of more or less objectionable substances. Among these, according to ALLEN, are phenol, paracresol, cresol, kylenol, creasol, homocreasol, cœrneignol, and four methylic ethers of trihydric phenols. Many of the foregoing are distinctly toxic, but pure creasote, HUSEMAN declares to be non-poisonous. Those who are in a position to know about it, however, state positively that there is much poisonous creasote in the market.[2] The "United States Dispensatory" states that: "Commercial creasote almost always contains carbolic and cresylic acids from coal tar; and indeed much of what is sold for creasote is nothing more than impure carbolic acid." This is not written in order to discredit the use of pure beechwood creasote in medicine, as originally suggested by SOMMERBRODT; but, to explain why chemists and clinicians have diligently sought for a similar preparation possessing equally beneficial effects, but having definite and uniform composition. Thus creasotal, or creasote carbonate was brought out by DR. CHAUMIER in a paper read before the Academy of Medicine of Paris.[3] DR. F. WALZER reported favorably upon benzosol, (a compound of benzoic acid with pure guaiacol, forming benzoylorrhoöxyanisol) which has the advantage over the preceding in the fact that it is a solid, being a colorless crystalline powder almost free from smell and taste. In the digestive tract it splits up again into its constituents, guaiacol and benzoic acid.

It might also be of interest to note that recently DRS. A. GILBERT and L. MAURAT have reported favorably upon the effects of a chemically pure form of guaiacol, which is made artificially, (synthetic guaiacol). This substance appears in the form of white, rhombohedial crystals, fusing at 28.5 degrees, C., and boiling at 20.5 degrees, C., with a specific gravity of 1.143. It is practically insoluble in water, but is soluble in alcohol, oils, and anhydrous glycerin. It possesses a sweet taste at first, which soon changes to a pricking and burning sensation.[4] It melts into a sticky paste at the temperature of the surface of the body. This has been used, combined with oil, in capsules, for internal administration in phthisis principally.

DRS. WEIL and DIAMANTBERGER, since 1889 have administered pure guaiacol in sweet almond oil (equal parts of each) by subcutaneous injection, in all the forms of pulmonary tuberculosis, and claim to have had very good results.[5] Of eighty-two patients, sixty-two were improved, two remained stationary, and eighteen became worse while under this treatment. Of the sixty-two cases, twenty-seven were considered cured. In the majority of cases the unfavorable symptoms of the disease were strikingly modified after a relatively short time.

About a year ago, DR. SCIOLLA[6] made the remarkable observation that external applications of guaiacol to a small area of the general surface, were promptly and uniformly followed by a reduction of the bodily temperature. This was soon corroborated

[1] Definition from advance sheets of Gould's "New Medical Dictionary."

[2] Nagelvoort on "Poisonous Creasote," Bulletin of Pharmacy, Vol. vi, p. 557.

[3] Deutsche Med. Wochenschrift, 1893, Nos. 24-25.

[4] The Medical Week.

[5] Bulletin Medical, 1893. No. 68.

[6] La Semaine Medicale, 1893. No. 21.

by the results obtained in tuberculous cases by BARD and also by LANNOIS. Subsequently ROBILLARD of Lille[7] also repeated these observations upon guaiacol and confirmed SCIOLLA'S statements concerning its powerful antipyretic effect. DRS. CASSOVICE and SIGALEA modified SCIOLLA'S method by not applying the remedy in a pure state, but in combination with the tincture of iodin (one part guaiacol to five parts of iodin). Of this, about 2 drachms are used for a single painting, applied on the affected side all along the posterior part of the throat, every evening. These paintings are said to give rise to a considerable fall in temperature, abundant perspiration, and increased diuresis. In a severe case of left pleuritic effusion, in which puncture did not bring about any improvement, the fever disappeared and after a few applications, the extravasation was promptly absorbed.[8]

Quite recently, DA COSTA[9] gives his experience in the external use of guaiacol in reducing high temperatures in typhoid fever and other febrile diseases. He communicates the clinical notes of several hospital cases, with very striking temperature charts, showing conclusively the heat-reducing action of guaiacol when simply painted upon the skin, with or without friction. He found that the action was gradual and rather slow, not reaching its maximum effect until about three hours after the application. The place he usually selected was the abdomen, in the iliac region of right side, and the quantity usually employed was 30 drops. Larger doses were found to bring the temperature down below normal, and the patient was depressed and chilly, but the dose of 30 drops was well borne even by the typhoid cases. It produced no evident depressing effects upon the circulation or the respiration, but was likely to cause moderate perspiration. No obvious effects upon the urine, no albuminuria or other sign of kidney irritation were detected. This distinguished authority on clinical medicine pronounces it a valuable adjunct to the treatment of typhoid fever, or other diseases attended by high temperature, especially where the attendant circumstances would not permit the use of the cold bath. Where there is a tendency to intestinal hemorrhage, he advised abstention from resorting to the cold bath treatment, and declared that it is in these cases that guaiacol will be found of special advantage used in the manner mentioned.

It must be conceded, in the face of so much concurrent testimony concerning the action of guaiacol upon bodily heat, that we have come into possession of a remarkable agent for the treatment of high temperature, when this symptom calls for special therapeutic management. It is to be hoped that all who may subsequently experiment with guaiacol may observe the caution given by DA COSTA, of not using an unnecessarily large dose; for although not considered a toxic agent, it can not be expected that a remedy capable of such potent action may be administered recklessly, or in doses unsuited to the physical development and condition, as well as the age of the patient. The suggestion to watch the kidneys it is also well to keep in mind, for it may be found that, just as with other drugs, there may be cases of idiosyncrasy, in which guaiacol might cause such distress or depression as would threaten the patient's life.

There are many surprises among the untoward effects of drugs, and what these may be in the case of guaiacol remains to be seen. In the meantime, however, therapeutics has been enriched by a potent and (as the rule at least), non-poisonous antipyretic possessing decided advantages over similar substances obtained from among the aromatic series of coal-tar products.

[7] Societé de Biologie, July, 1893.
[8] American Med. Surg. Bulletin, November, 1893; from Semaine-Medicale No. 52. [9] Medical News, Jan. 27, 1894.

SMALLPOX.

There is not much change in the smallpox situation. In Pennsylvania there are nine points where the disease exists, five of them in Berks County, and at nearly all of them under complete control. The case found at Williamsport on January 26 is the first new infected locality reported in three weeks. Philadelphia has, so far, escaped and the outlook in the State is hopeful. New cases are daily found at Chicago and New York, and the disease is slowly increasing in both cities. A case was reported at St. Louis, and one at Cotton Hill, Ill., the origin of both being traced to Chicago. On January 22 two cases were removed from the old Homeopathic Hospital on Ward's Island, and three days later one was taken from the Insane Asylum on Ward's Island. A short time ago there was a case found in one of the public schools of Boston, and on January 27 three cases were discovered in the Cook County Hospital, Chicago. The existence of the disease has also been reported at several places in Virginia near the Tennessee line.

Chicago in 1893 had 130 cases of smallpox with only 19 deaths. Without exception, all who died had not been vaccinated.

The smallpox hospital of Birmingham, England, had over two hundred patients at the end of 1893.

DISCRIMINATION BETWEEN EFFECTS OF DISEASE AND INJURY.

Members of the medical profession are likely, as personal injury litigation multiplies, to be called more frequently to discriminate, if possible, between the effects, in given cases of disease, or an unhealthy internal condition, and of external injuries. A striking precedent is furnished by the decision of the Supreme Court of Michigan rendered Jan. 9, 1894, in

the case of Shumway v. Walworth & Neville Manufacturing Company. This was an action brought to recover damages for the loss of certain fingers injured in a machine. But it was contended, on the other side, that the loss of the fingers was not the result of the injury, but was the result of the man's own condition, he being unhealthy. There was evidence tending very strongly to show that he was, previous to the injury, afflicted with a scrofulous disease; and the inference, perhaps was justified that such serious consequence would not have followed from the injury, had not this been his condition. The trial court in commenting upon this testimony, instructed the jury as follows: "In consequence of there being something wrong about his own constitution, the injury was aggravated, and it amounted to about this: That the permanent injury was partially or quite the result of just that thing, rather than the result of the accident itself, in the machinery. Now, you may decide this question: How much of the injury which he has suffered is the consequence of that, rather than the consequence of the injury itself? There is no kind of question, of course, that the accident or injury there—the hurting of his hand in the machine—did cause him some injury; but whether it was all caused by it, or the greater part of it, or only a small part of it, is another question and a question which you will have to decide." In another portion of the charge he stated: "If it be true that his constitution is in such a condition that a little injury, which is liable to occur to many men at any time, will have these aggravated results, he is not a man in such a condition and situation as a man who is sound, and the diminution of his capacity to work may not be as great." These instructions, the Supreme Court holds, were sufficiently favorable to the company sued. The fact that the man was afflicted with a scrofulous difficulty, which rendered it possible, or even likely, that a slight injury would produce more serious results than if inflicted upon a perfectly healthy person, would not put him beyond the pale of the law, or prevent a recovery of such actual damages as he had sustained.

CRUDE COCAIN IS NOT A MEDICINAL PREPARATION.

Crude cocain is not a medicinal preparation. True, it is used in the manufacture of cocain wines, which are generally proprietary preparations, and of oleates, but it is not employed in filling prescriptions. Its occasional use, for the sake of economy, upon the surface of the skin for surgical purposes, or for dental purposes, does not change the case. Neither does the fact that crude cocain is extracted from the leaves of the plant coca, by the aid of diluted alcohol, according to the decision of the United States Circuit Court of Appeals, in the case of Hirzel v. United States, rendered Dec. 5, 1893, constitute it a medicinal preparation in the preparation of which alcohol is used, within the meaning of the tariff act of Oct. 1, 1890. Under that tariff it is, therefore, dutiable at 25 per cent. ad valorem, rather than at 50 cents per pound.

IN UNITED STATES COURTS.

The United States Circuit Court of Appeals holds, in the case of the Mutual Benefit Life Insurance Company v. Robinson, decided Nov. 13, 1893, that under the provisions of the United States statutes, and the constructions of the Supreme Court upon them, a federal court is governed by the law of the State in which it sits with reference to the admissibility of the testimony of a physician in any given case. Consequently, where a State statute makes communications to a physician, properly intrusted to him in his professional capacity confidential and privileged, a United States court held in that State must treat them in the same way.

LEGAL PRESUMPTION AS TO THE DEAF AND DUMB.

However the deaf and dumb may have been regarded in times past and in other countries, the Supreme Court of Missouri holds, in the case of State v. Howard, decided Nov. 21, 1893, that the presumption that a person deaf and dumb from birth should be deemed an idiot does not seem to obtain in modern practice,—at least in the United States. Such unfortunate persons may be witnesses, if able to communicate their ideas by signs, through the medium of an interpreter, or by writing, if they write and read writing.

PROOF OF ABORTION BY CIRCUMSTANTIAL EVIDENCE.

Abortion can be proved entirely by circumstantial evidence. Thus, in effect, holds the Supreme Court of New York, general term, in the case of People v. Van Zile, decided Dec. 1, 1893. Among the facts which it is proper to take into account in such a case is the death of the woman from miscarriage. So also may the subsequent conduct of the person charged with the crime be considered.

THE FEMALE MEMBERSHIP IN THE BRITISH MEDICAL ASSOCIATION.

The *British Medical Journal*, January 6, gives a list of the ladies who have been allowed to enter the great National Association. The list contains twenty names, headed by MRS. GARRETT ANDERSON of London. At the annual meeting of the Association, last year, at Newcastle, the by-laws were so amended as to expunge all clauses that have hitherto rendered women ineligible for membership in the main Association and in the branches. The number of lady doctors in the United Kingdom was 135 in 1892, whereas in 1878 there were only 8.

CORRESPONDENCE.

Fluid Drinks After Laparotomy.

To the Editor:—The occasion of these remarks is the appearance of a nicely written little book on the "After-Treatment of Laparotomy" by Dr. Christopher Martin, the trusted assistant of Mr. Lawson Tait. Dr. Martin's book is just issued and as it is not published in this country, he kindly sent me one of the first numbers. In 1890, I was a pupil of Mr. Tait's for six months and at this time Dr. Martin had full charge of the after-treatment, as Mr. Tait seldom saw many of the patients after he had performed the operation. I then had ample opportunity to witness the after-treatment by *special permission* of Mr. Tait. Dr. Martin is a skilful surgeon and a keen observer of natural phenomena in the field of laparotomy. His little book is based on the after-treatment of 1,000 cases of abdominal section. He is possessed of independence sufficient to assert his own opinions whenever he may differ from Dr. Tait. It is, to me, gratifying that a man who has had ample opportunity of observing all the after-treatment of 1,000 cases in the service of any distinguished surgeon, that he will rise and assert his opinions in direct opposition to his instructor. Dr. Martin boldly writes against the *non-antiseptic practices* of Mr. Tait. This is after several years of close association with Mr. Tait and the observation of 1,000 abdominal sections of that distinguished surgeon.

I am personally acquainted with some conditions which would explain the difference of opinion, between Mr. Tait's ideas of antiseptic practice and those of Dr. Martin. But the chief object of this letter is to strongly protest against the practice of both Mr. Tait and Dr. Martin in the administration of fluids after laparotomy. Dr. Martin reflects Mr. Tait's practice and coincides with it himself when he writes: "In some mysterious way the mere opening of the peritoneal cavity—as in exploratory incision—induces a terrible thirst and this is aggravated by the *forty-eight hours' enforced abstinence from fluids.*" (Italics mine.) It is against this cruel "forty-eight hours" that I wish to protest. While I was with Mr. Tait for six months, I was awfully impressed with the intense suffering which a patient endured for the first two days with no fluid to drink, and I determined that I would try other means after laparotomy. I do not think I ever heard patients beg so pitifully as I heard Mr. Tait's beg for a little water. The desire for fluids after laparotomy becomes absolutely intense and I do not see why a laparotomy patient should long and hope and beg for a little fluid. Nature knows more than all the doctors combined. Thirst demands drink. Besides it seems to me to be therapeutic foolishness to withhold fluids from a patient whose system should be drained. To drain a marsh we establish a duct so that the whole fluid can flow out of the canal. The kidneys can best drain the system by having the material to be carried out well diluted. The waste-laden blood can be best filtered through the kidney by a full volume of blood in a dilute state. Again, the blood has been dehydrated by the active saline cathartics previous to the operation so that sound therapeutics would indicate to give fluids after abdominal section in order to reinstate a normal blood condition. Not only this, but *water is no doubt the best known diuretic.* I believe in washing out the kidney with water after laparotomy.

Since my experience with Mr. Tait, three years ago, I have been *advocating* and *practicing* the giving of drinks after every abdominal section. I give immediately after the operation an ounce of that fluid an hour if the patient desires it. In eight to twelve hours after the operation I give two fluid ounces an hour if the patient desire. Hot fluids slake the thirst better than cold fluids. I use no cold fluids for three to four days. Under this practice of giving fluids after abdominal section, in order to show that it is practical, I can present series of recoveries equal to most statistics. For example, with ample drinks after laparotomy, we had one series of *thirty-two* consecutive cases with one death, and that death had nothing to do with drinks. These cases were not selected, but operated on just as they came in order. Dr. Martin well says: "Ice must be shunned as poison." I am fully convinced that ice is a most disastrous agent after laparotomy and should never be used. The ice entices blood to the mucous membranes which induces more and more thirst while hot fluids slake thirst most effectually. I know two well-known gynecologists—one gives hot fluids after abdominal section and scarcely ever has any kidney trouble. The other withholds fluids after the operation and I know that he reports at least *five times* as much kidney trouble as the first gynecologist.

I have long advocated and practiced giving ample hot fluid drinks after laparotomy and I think experience and sound therapeutics has proved that it is a wise and humane course. I base it on the following conclusions:

1. Thirst demands drink.
2. *Water is the best diuretic.*
3. Waste material is best removed from the blood in a dilute state.
4. By saline cathartics the blood has been dehydrated before the operation and should be diluted immediately after the operation.
5. Drinks lessens severe suffering.
6. Hot drinks stimulate the shocked system and hasten depletion.
7. Fluid drinks induce sweating and deplete the skin.
8. Drinks serve as a source of nourishment and keep up the patient's strength.
9. Experience teaches that results with drinks are equally good and I think better than without drinks.
10. Drinks lessen kidney complications following laparotomy.
11. Hot drinks check vomiting and quiet irritation.
12. Ice and cold drinks must be avoided.

Florence Nightingale astonished the doctors by giving the sick soldiers what their appetite craved. Such nursing did not kill the soldiers, though it disturbed the dignified authority of the great physicians.

A year ago Dr. Byford informed me in conversation on the subject of drinks after laparotomy that he was also giving considerable fluid, and he remarked that his patients did better than previously. I also write from another standpoint.

Some seven years ago I became infected from dressing a wound. I was in bed about six weeks with a high fever. During that time free drinks were not allowed me. I never suffered so much from thirst in my life. Such measures are not sound in physiologic principle. The distinguished surgeon, Mr. Tait, has been the very man who has taught us how to save so many laparotomy patients by *draining* the alimentary canal with salines. Why not drain by the kidney with water!!! I believe that "enforced abstinence" from fluids after laparotomy is not wise therapeutics nor sound physiologic doctrine, and I give, as a final result that systematic experience and systematic observation and reasoning prove to me, that the wisest plan is to give hot fluid drinks after (human) laparotomy.

Respectfully,

F. Byron Robinson.

Chicago, January, 1894.

The New York Academy of Medicine and the Public Health Bill.

To the Editor:—The Journal for Dec. 30, 1892, reported the action taken by the Chicago Medical Society regarding the request of the New York Academy of Medicine to coöperate with it in securing the enactment of a public health bill, and stated that the Society refused this coöperation because the bill did not accomplish the purposes implied by its title, and in general, "the criticisms on this bill might be almost in-

definitely extended." Yet Dr. J. H. Girdner, apparently speaking as a representative for the Academy of Medicine, appeared before the Congressional Committee who were considering the bill, and misrepresented the position of the Chicago Society by the statement that its opposition to the bill was based on the ground that the latter was not radical enough. When asked where the Marine Hospital Service was weak, and in what particulars it did not cover the work outlined in the proposed bill, this advocate replied that he was not there to make war on the Marine Hospital Service, but in the interest of good legislation.

The farcical nature of this latter statement may be appreciated when the bill is compared with the law of Feb. 15, 1893, and it may be seen that twenty-three of the twenty-eight sections of this proposed bill are sections of the former law.

Perhaps it would be well for the members of the AMERICAN MEDICAL ASSOCIATION, and of the various State and local medical societies, to be acquainted with the true inwardness of this bill. In the early months of 1893, the New York Academy of Medicine, by one of the largest votes that has ever been polled, decided by a majority of less than twelve to prepare a bill for a National quarantine. This vote was taken when the law of February 15 had just passed Congress and was awaiting the President's signature.

The President of the Academy appointed on the Committee, A. Jacobi, a consultant and general practitioner; T. M. Prudden, a pathologist; L. A. Sayre, the well-known surgeon, once Health Commissioner of New York; C. C. Lee, a gynecologist, since deceased; Laurence Johnson, a general practitioner, since deceased; A. H. Smith, a general practitioner, Daniel Lewis, a surgeon; E. Bronson, a dermatologist; C. L. Dana, a neurologist; W. T. Lusk, an obstetrician; C. C. Rice, a laryngologist; T. M. Markoe, a surgeon; Mr. Allen Starr, a neurologist; S. B. Ward; C. McBurney, a surgeon; J. D. Bryant, surgeon, once Health Commissioner of New York; R. H. Derby, an ophthalmologist: E. G. Janeway, a consultant, once Health Commissioner of New York; T. Gaillard Thomas, a gynecologist; David Webster, an ophthalmologist; Stephen Smith, a surgeon, once member of the late National Board of Health; J. H. Girdner, a general practitioner; D. B. St. John Roosa, an ophthalmologist; and J. West Roosevelt, a consultant.

A sub-committee, consisting of J. D. Bryant, President, R. H. Derby, E. G. Janeway, T. Gaillard Thomas, David Webster, Stephen Smith,[1] and J. H. Girdner was intrusted with the preparation of the to-be-proposed law. The Committee was originally appointed with power to act, and the bill was formulated by the sub-committee without even referring it to the Academy for approval or amendment.

As might be imagined, a bill that was formulated by men, however experienced and eminent in their respective specialties but who were with but one or two exceptions, unknowing and unknown in sanitary science, was a hodge-podge of past and present sanitary measures.

Almost every year Congress is approached by tyros in sanitation, whose knowledge of the subject whereof they would speak is in an inverse ratio to the enthusiasm and energy they display in exploiting their views, and who seem to be afflicted with a species of paranoia that takes the form of, what it is sarcasm to designate as their knowledge of the sanitary necessities of the United States. And this year we witness such a bill, advocated by a person whose name has never been heard in any sanitary society or congress in this country, and who endeavors to enhance the desirability of the adoption of his measure by casting slurs and innuendoes on the competency and qualifications of the officers of the Marine Hospital Service. By chance, the writer happens to know of the many medical colleges in the United States that have been glad to have these alleged inexperienced men as members of their faculties, and of the many medical societies that have honored them by electing them as their presiding officers. Sanitarians know that the officers of the Public Services form the sole permanent medical corps of officers trained in sanitary methods in this country.

The intimation that has been made that the Academy of Medicine's bill should not receive the support of the regular medical societies of this country, because that body started the code fight and has since elected Homeopaths into full membership is not a valid reason for refusing to support it in work for the public or professional weal.

But when it advocates a measure in which a large minority of its fellows do not believe; when such a measure claims to establish a bureau of public health that is nothing but a bureau of seaboard and inter-state quarantine; and when that measure aims to overthrow existing and efficient institutions for the purpose of creating a board that, in the nature of existing customs will become the refuge of the political spoils-man, then it seems desirable that our societies should not only display the true inwardness of the bill, bnt also protest against its enactment.

There is a large and not uninfluential minority in the New York Academy of Medicine who deprecate the influence of the Academy being exercised in endeavoring to secure legislation of the kind proposed, especially as there is good evidence that all the proposed bill can accomplish is being better and less clumsily accomplished under existing National health laws.

ONE OF THE MINORITY OF THE NEW YORK ACADEMY OF MEDICINE.

[1] Members who in the past had had Sanitary Service.

No Vivisection Without Anesthesia.

CHICAGO, Jan. 29, 1894.

To the Editor:—I am glad to see (from your article of 23d ultimo) that you agree with me in the main part of my contention, viz.: That there should be no vivisection (as the word is commonly understood) without anesthesia. The leading words in my article (which you speak of but do not quote) are: "No one objects to vivisection with anesthesia." I am also glad to join you in your pride in the results of surgical researches, assisted by anesthesia. There you know vastly more than can be known to a layman. But when you say: "Under all circumstances, when mutilation and cutting is resorted to, anesthetics are used," I think you make an assertion which thousands of men know to be untrue.

Not to take up your valuable space by multiplying examples, I merely cite the following account extracted from the article by Dr. Albert Leffingwell in *Lippincott's Magazine*, August, 1884:

"There is a certain experiment, one of the most excruciating which can be performed, which consists in exposing the spinal cord of the dog for the purpose of demonstrating the function of the spinal nerves. . . . It is not the cutting operation which forms its chief peculiarity or to which special objection would be made. At present all this preliminary process is generally performed under anesthetics. It is an hour or two later, when the animal has partly recovered from the severe shock of the operation, that the wound is re-opened and the experiment begins. It was during a class demonstration of this kind by Magendie, before the introduction of ether, that the circumstance occurred which one hesitates to think possible in a person retaining a single spark of humanity or pity. 'I recall to mind,' says Dr. Latour, who was present at the time, 'a poor dog, the roots of whose vertebral nerves Magendie desired to lay bare to demonstrate Bell's theory, which he claimed as his own. The dog, mutilated and bleeding, twice escaped from under the implacable knife, and threw its front paws around Magendie's heel, licking as if to soften his murderer and

ask for pity. I confess I was unable to endure that heart-rending spectacle.' This experiment—which we are told passes even the callousness of Germany to repeat; which every leading champion of vivisection in Great Britain reprobates for medical teaching; which some of them shrink even from seeing, themselves, from horror at the tortures necessarily inflicted; which the most ruthless among them *dare not* exhibit to the young men of England,—this *experiment has been performed publicly again and again in American medical colleges*, without exciting, so far as we know, even a whisper of protest or the faintest murmur of remonstrance! The proof is to be found in the published statements of the experimenter himself. In his "Text-book of Physiology," Professor Flint says: 'Magendie . . . showed very satisfactorily that the posterior roots (of the spinal cord) were exclusively sensory, and this fact has been confirmed by more recent observations upon the higher classes of animals. We have ourselves *frequently* exposed and irritated the roots of the nerves in dogs, *in public demonstrations* in experiments on the recurrent sensibility, . . . and in another series of observations.'"

Now to bring this citation down to the present day, I beg your attention to the address of Philip G. Peabody, A.M., LL.B. of Boston, delivered in London, June 14, 1893. He says, among other things:

"In explanation of my allusion to the largeness of the number of animals vivisected, I may say that in two institutions which I have within a few days visited in Paris, in each of which I was expressly told that they keep *small* supplies for daily use only, and replenish the stock every day or two, I nevertheless saw, I should say, over a thousand animals intended for vivisection or actually undergoing it, including horses, dogs, monkeys, rabbits, chickens, ducks, pigeons, rats, mice, guineapigs, frogs and fish, and was told that they had cows and cats also; the small cages *alone*, in each institution, intended, remember, for one day's supply, would easily hold, I believe, five thousand animals, each the size of a medium sized dog.

"Relative to anesthetics, I will say that out of a large number of vivisections extending over several days, and including various different kinds of animals, no anesthetic or pretence of it was used in one single case. I saw no anesthetics in or about either institution, and feel sure that none is ever used, except perhaps in some unusual case. When a dog is convulsed with agony, he is readily soothed by a caress so as not to disturb his tormentor, and usually licks the hand of his torturer. Any one who will observe a vivisector at work, will see not only that, as one infamous perjurer inadvertently confessed, he is absolutely regardless of the suffering to his victim, but that it must be so. His cutting, mangling, burning, is frequently, I may say habitually, just exactly the same in the case of the living dog as in the case of the dead one.

"I have within one week seen animals operated upon on Saturday afternoon, when the vivisectors left their laboratory, left alive in the laboratory evidently, and as I was told by the operator, to remain until the morning, perhaps Monday morning, unless released sooner by an accidental death, before undergoing the conclusion or continuation of the experiment."

Supposing that you admit the validity of these reports, I think you should join me in the effort to forbid, by law, all vivisection unaccompanied by anesthesia.

JOSEPH KIRKLAND.

The Hyposulphites in Yellow Fever.

WAUKESHA, WIS., Feb. 4, 1894.

To the Editor:—In the last number of the JOURNAL, February 3, on page 138, in a paper by Dr. Joseph Jones of New Orleans on the value of the sulphites and hyposulphites I note this statement:

"2. It has been affirmed that the hyposulphite of sodium given internally in regular doses even in the presence of the poison in a yellow fever epidemic, will completely ward off this disease. *I have no facts with which to prove this statement but would advise that it be put to the test as might easily have been done as I suggested in the recent epidemic at Brunswick, Ga.*" (Italics mine.)

Now it is a little humiliating to read such a statement, and from such a high source, when the facts are these: In the great yellow fever epidemic of 1878 which created such ravages in Memphis, Granada, Miss., and New Orleans, I not only recommended the free use of the hyposulphites, but in 492 cases then reported, I administered it freely and with most pronounced effect, both as a prophylactic and as a therapeutic measure throughout the course of the disease. After the epidemic I wrote a little book on "Yellow Fever", which was published by Messrs. Wheeler Bros., in Nashville, Tenn., where I held at that time the Chair of Anatomy in the same institution in which Dr. Jones was Professor of Physiology just previous to my entrance to the Faculty. In the spring of 1879 I presented, in person, to Dr. Jones a copy of this work, and it certainly was never read by him as the chapters on prophylaxis and treatment were full of reports anent the action of the hyposulphites as anti-zymotics. I do not write this as a self-advertisement, but I do think that after extensive reviews of my work which appeared at the time it was issued, and the indorsement which the suggestion of this treatment received by those of my colleagues then engaged with me in that awful siege, and its further successful use in the Jacksonville epidemic of 1888, reported extensively through the journals, it is somewhat remarkable that such a statement should appear at this late date, and in such a sweeping manner, especially as I had called in person on Dr. Jones and laid before him a copy of my work for his perusal, Although it is sadly true that "a prophet is not without honor save in his own country," it might perhaps be well to remember that occasionally, at least, "some good may come out of Nazareth."

T. O. SUMMERS, M.D.

Superfluous Glasses.

IOWA CITY, Feb. 5, 1894.

To the Editor:—In the editorial on "Superfluous Glasses," in the JOURNAL of February 3, there are several points which I can heartily indorse, and some, naturally, that seem to me not well taken. I write now because I am preparing an article on asthenopia, based on records of more than a thousand cases seen in private practice, nearly all among professional people and students. The notes do not cover refractive errors alone, but constitutional conditions, general and local diseases, etc. More than six hundred had errors of refraction, and while relief of refractive error has always been to the advantage of the patient, the cure of asthenopia, in my experience, often requires more than simply making the eye the most perfect optical instrument possible, or securing the so called equilibrium of muscular movement of both eyes. Asthenopia occurs with one eye, with emmetropia, hyperopia, myopia, all forms of astigmatism, anisometropia, with ear, nose and throat diseases, with uterine and rectal disease, with bad hygienic surroundings, etc.; and all of these conditions occur without asthenopia. Indeed, among my cases of refractive trouble, a little more than half the cases were asthenopic, in each variety. Asthenopia is more frequently found among those with very acute vision than among those with very poor.

While I very much doubt the influence of 0.25D. of hyperopia, or even astigmatism, in the production of *asthenopia*, there is no doubt but that acuteness of vision may frequently be greatly increased by even this apparently insignificant correction. The subject of asthenopia is one deserving more attention from the profession at large than it receives, for it has an important bearing upon occupation and habits through life, and plays an active part in many neurotic complications. If you desire it for the JOURNAL, I will prepare my analysis of cases, and deductions therefrom especially in reference to causation.

C. M. HOBBY., M.D.

ASSOCIATION NEWS.

Success is Assured.—It is very gratifying to be able at this very early date to assure our readers and members in the East that the AMERICAN MEDICAL ASSOCIATION meeting for 1894 promises to be a grand success. We are in receipt of enthusiastic letters from medical men in various parts of California, Oregon and Washington, informing us that they contemplate coming to San Francisco in June to attend the ASSOCIATION meeting and become members of the organization. We can assure them that everything will be in readiness on our part. The various committees are sparing no pains to provide literary feasts and social pleasures to all who may honor us with their presence. There will be grand dinners, balls, excursions on the bay and into the country, receptions, etc., etc. California has already gained laurels as hostess and we can promise that she will do justice to her friends on the occasion of June 4, 1894.—*Pacific Medical Journal.*

Join the American Medical Association.—We would urge every medical man to become a member of his county society, then join the State Society and thus become eligible to membership in the AMERICAN MEDICAL ASSOCIATION, which meets in San Francisco June 4, 1894. The ASSOCIATION should take in at least one thousand new members from this coast. The British Medical Association has a membership of over 5,000, whilst the members of the AMERICAN MEDICAL ASSOCIATION number only 2,000.—*Pacific Medical Journal.*

This is an error. The AMERICAN MEDICAL ASSOCIATION has nearly 5,000 members, while the British Medical Association has over 15,000.—Editor. JOUR. AM. MED. ASSOCIATION.

SOCIETY NEWS.

Medical Society of the Missouri Valley.—The spring meeting of this Society will be held in Omaha, Neb., March 15, and continue in session one day. Members contributing papers must send titles to the Secretary prior to February 20, so they can appear on printed program, mailed March 1. Applications for membership can be sent to J. F. White, M.D., Council Bluffs, Iowa, with a fee of $2 enclosed. A full meeting is expected; a profitable session desired.

F. S. THOMAS, M.D., Sec'y.

American Electro-Therapeutic Association.

The Third Annual Meeting Held in Chicago, Sept. 12, 13 and 14, 1893.

AUGUSTIN H. GOELET, M.D., President.

(*Continued from page 168*).

H. E. HAYD, M.D. of Buffalo, read the following paper on

SOME OBSERVATIONS ON THE FINE WIRE COIL OR CURRENT OF TENSION.

The fine faradic coil or coil of tension has found a recognized place in scientific medicine, and more particularly in gynecologic therapeutics, where its sedative properties are so strongly, as well as satisfactorily, demonstrated. Certain conditions are, however, necessary in order to obtain this sedative quality of the faradic secondary current. The wire must be long, and very finely attenuated, and the interrupter must be capable of very quick and smooth vibrations. The batteries ordinarily sold to the trade can not be depended upon, as the coils are too short, the wire is too thick, and the vibrations too slow. It is, perhaps, a very difficult matter to decide how fine the degree of attenuation of the wire shall be, and whether, after a certain point, the difficulties of insulation become so great as to interfere with the properties and the powers of the current generated. Yet Engleman has demonstrated that a coil can be made six thousand feet in length, and of a wire No. 36, (Brown & Sharpley scale) which is capable of producing a very steady and uniformly soothing quality of current. In my own practice, I have used a coil thirty-five hundred feet in length, No. 32, and tapped at three points, and making it possible, by reason of a convenient little switch, to use fifteen hundred feet, or twenty-five hundred feet, or thirty-five hundred feet of wire as desired. My vibrator is capable of at least two hundred to two hundred and fifty vibrations per second. Goelet recommends a wire forty-five hundred feet in length, No. 36 in size, and a vibrator from three hundred to three hundred and fifty per second.

Various explanations are given for these great differences in the physical and physiologic properties of the current generated with these different sized coils and wires; and, at the same time, certain indications for employing slow or rapid vibrators.

We are all aware that the immediate and occult effect of the faradic current is to cause tonic contraction of muscle fiber, and if the wire be coarse, this contraction is not only most marked, but decidedly painful. Moreover, this contraction, as well as pain, is increased when a slow vibrator is employed. Consequently, if mere muscular tone and muscular exercise is the desired indication, the wire should be accordingly coarse and the vibration slow, so as to give sufficient time to enable the muscle to thoroughly contract, and then relax itself. On the other hand, if the interruptions be very rapid, the muscles are unable to respond to each vibration and are brought into a condition of constant contraction or rigidity. The sensory nerves of the part, subjected as they have been to this constant and intense stimulation, cease to be impressionable and, as a result, a temporary paralysis or anesthesia takes place, of more or less prolonged duration.

Accepting this reasonable physiologic explanation, Apostoli, Engleman, Goelet, and many others have used the fine coil, or coil of tension in acute inflammations, and have been enabled to provide this subtle but powerful opiate for the relief of the pain accompanying these conditions.

They, (Engleman and Goelet) have demonstrated, what any one of you can verify by a simple trial, that the interrupter or vibrator influences the quality of the current wonderfully. You will find that a fine, rapid vibrator, when used with a coarse short coil, softens the character of the current generated; and that a slow vibrator, when used in conjunction with a long fine coil, gives a harsh, painful and penetrating effect. Therefore, to the interrupter, as much as to the coil, must we ascribe the sedative effects of the current and in order to bring about the most sedation, in an excitable and inflamed area, a fine coil of at least thirty-five hundred to five thousand feet in length, and a vibrator capable of at least two hundred and fifty to three hundred and fifty vibrations per second is an absolute necessity.

I desire, more especially, to call your attention, however, to the application of this wonderful force in relieving and curing many conditions which heretofore have been the *bete noir* of my practice. Slight and not dangerous, but, nevertheless, most annoying symptoms; distressing to the unfortunate patient, and harassing to the medical attendant.

Those cases of neuralgic or neurotic dysmenorrhea, found in young women, associated with much pain and tenderness over the ovaries, and often excruciating pain upon pressure in the epigastrium and pit of the stomach; various reflex dyspeptic symptoms, nausea and vomiting at the menstrual epoch, and constricting pains in the throat, and globus hystericus. Upon vaginal examination there is no fixation, no shortening and distortion of the tubes, and in fact, other than perhaps vaginismus and tenderness in the vaginal vault, no gross evidences of disease whatsoever. I believe in these cases the fine coil may be considered a specific, so satisfactory and delightful have my experiences been. The painful menstrual crises have ceased; the gastric irritability, and epigastric pain and tenderness have passed away as if by magic, and the patient returns for a second treatment, cheerful; after having freely partaken of food and nourishment, which previously not only distressed her, but occasioned pain and immediate vomiting.

Various nervous manifestations due to some irritable condition of the nervous mechanism of the bowels; flatulence, roaring, and croaking noises, which so seriously disturb the comfort and happiness of so many young women. In one case, that of a young unmarried women, in whom I had tried every medicine known to me without appreciable effect, and where the condition was so exaggerated that she was denied the pleasure of society, and was fast becoming a hopeless hypochondriac. I found the ovaries tender and sensitive to the touch; pain was elicited by pressure over the pubic and iliac regions, and there was also marked epigastric tenderness. Ten treatments in all were given, and a perfect and permanent cure was effected. This case I reported in the March, 1892, number of the *Buffalo Medical and Surgical*

Journal. This treatment has proved especially valuable in those acutely retroflexed uteri, where the body is so hypersensitive that even the slightest pressure provokes the most distressing pain. In inflamed, tender and prolapsed ovaries, the pain has often been relieved sufficiently to enable a proper fitting support or pessary to be borne with comfort and satisfaction. Moreover, it is a valuable agent to commence the treatment of painful conditions; in fact, to supplement galvanism, vaginal or intra-uterine, when indicated. I have also found it occasionally of very great service in relieving the post-operative pains of salpingotomy and in one case in particular, (that of a young widow, from whom I removed two large pus tubes and ovaries,) it was especially valuable. She returned after two months, suffering great pain in the region of the left stump. No apparent reason could be assigned, and the condition was treated empirically with the fine faradic coil. Relief was immediate and permanent after a few treatments.

I have not met such encouragement in the treatment of the pain and local tenderness of slight salpingitis; those cases where the uterus is not fixed and its movements not specially restricted, but simply pain and tenderness are complained of on elevating the organ, or moving it laterally from side to side, and especially at the cornual junction. Nor has the tenderness of endocervicitis, and endometritis and metritis yielded as kindly; making me, therefore, feel that the fine coil is more especially useful in those irritable nerve conditions or neuralgias, dependent upon some peculiar vaso-motor influence or disturbance.

But, it may be possible with a wire forty-five hundred feet in length, and a vibrator capable of at least three hundred and fifty vibrations per second, that a current of less stimulation, and of more sedative qualities would be obtained; and therefore bring about more encouraging results. Its application has the great advantage of being practically without danger, and it can be administered in the vagina by reason of a simple bi-polar vaginal electrode.

And to those of us who have studied the causal relationship between uterine disease and intra-uterine medications and applications of all kinds and sorts, this consideration offers very great consolation. The difficulties of diagnosis in rare uterine troubles are often very great, while pain, the symptom so commonly complained of, can often be relieved and without adding an element of danger, by reason of perhaps uncalled for and unnecessary intra-uterine manipulations.

Let me briefly give the histories of two interesting cases, not previously recorded, that will demonstrate in unmeasured terms my appreciation of the fine faradic coil in properly selected cases; (I must also add that these two cases are but *two* of a large number of similar ones):

Miss E., age 22, well nourished, healthy blonde of Irish extraction, consulted me for stomach trouble. Nausea, vomiting and inability to retain any food, not even teaspoonfuls of water; great pain in the pit of stomach, mental distress and anxious forebodings; menstrual periods were regular, but accompanied by great pain for twenty-four hours previous to their appearance. These symptoms were always associated with the menstrual molimen, and would last for some days after the flow ceased, but never in such an aggravated degree. I ordered her to swallow broken pieces of ice, and to apply mustard plasters to the pit of the stomach, and prescribed acid hydrocyan, dil. and soda bicarb. No relief was obtained, and the nausea was simply increased. Small doses of ipecac were tried, and then Gill Wylie's tablet of bismuth and oxalate of cerium. But to no avail. Finally, a hypodermic injection of morphia gr. ¼ and atropia gr. 1-150, but this only gave temporary relief.

As matters were becoming alarming, a vaginal examination was made. Nothing was manifest to the eye. The hymen was intact. No preputial adhesions, and the nymphæ were not enlarged or rugose The rectum was healthy, and free from erosions and fissures. The vaginal vault was excessively tender, and so much pain resulted from the examination that I was forced to desist. The iliac regions and the epigastric pit were especially tender upon slight palpation. The medium sized fine bi-polar vaginal electrode of Apostoli was inserted, and the current gradually increased. The sèance lasted about fifteen minutes, until all pain and tenderness had entirely disappeared. A vaginal examination was then made and other than a slight anti-flexed uterus, nothing abnormal could be made out. The stomach distress at once disappeared, light food was taken, and inside of forty-eight hours a very generous and wholesome diet indulged in. The treatments were given twice a week until the following menstruation appeared. It came regularly, and with no pain, and no stomach distress. The cure has been permanent, and seven months have elapsed since the last treatment.

The next case I saw in consultation with Dr. Morrison: a young unmarried woman, age 26, with the following history; menstruated first at 17; much pain and frontal headache. Fairly regular, but at intervals from thirty-four to thirty-six days, and the flow would last four days. Dysmenorrhea, frontal headache, great nervous excitement, nausea, vomiting and aphonia were the usual menstrual accompaniments. I found her in bed, where she had been for six weeks. Very thin and emaciated, and suffering with a good deal of abdominal pain. She had been vomiting for some days, and could take but very little liquid nourishment, and consequently, had been fed by nutrient enemata. Valerian, assafetida injections, and the usual hysterical remedies had been faithfully tried. There was no fever present, but the aphonia existed, and the stomach distress was very great. The pain and tenderness upon pressure over the ovaries and epigastric region were marked, as well as the hyperesthesia of the vaginal vault. The fine faradic coil was advised, and the most gratifying result followed its employment. Dr. Morrison told me that the pain and tenderness immediately disappeared, and after the second treatment, the dysphonia. The treatments were continued bi-weekly for two months. The subsequent periods came without any manifest inconvenience, and the young woman is now in good and robust health.

Another case of this same class suggests to my mind the wide field of possible usefulness of the fine faradic coil:

A young girl, age 17, well nourished, and of rather large, coarse, muscular build, but quite intelligent, with the following history: menses first appeared when 13; no pain. Irregularity, intervals from two to three months. Falling fits, occurring frequently, and of late, two and three in a day; unconscious during the attacks. Sometimes froths at the mouth; occasionally pulls her hair out, and once bit herself on the arms and hands. Upon examination there was great pain and tenderness, over the ovarian and epigastric regions; and while pressure was being made over the pit of the stomach, a fit was induced. It was of the nature of hystero-epilepsy. The arms and legs were thrown into violent spasms, and the body presented a horribly distorted appearance. The lower jaw was pulled to the left side, and the eyes half open, and looking to the right with the head semiflexed on the right shoulder. Violent respiratory movements occurred; the nostrils were blown in and out, but the face was not livid, as in epileptic, or uremic convulsions. The jaw was fixed, and no frothing occurred at the mouth. The fit lasted about two minutes, and by continuing the pressure over the epigastric pit, another paroxysm occurred; and seemingly any number of paroxysms could be induced by the pressure. While unconscious, the small sized electrode was inserted into the vagina, and by pressing on it so that it pressed against the vaginal vault another paroxysm resulted. The current was turned on, and after five minutes, firm pressure could be made in the vaginal vault and over the pit of the stomach, without inducing any pain or convulsive manifestations whatsoever. She seemed to be tired and sleepy after the sèance, and therefore was placed on a lounge; where she remained in a sound sleep for an hour. She returned in three days, and upon pressure in the epigastric pit no pain or spasm could be provoked. She also said, that previous to the fit she complained of a sick funny feeling at the pit of the stomach, and probably it was from this excitable and sensitive area, that the aura proceeded. She is still under observation and so far, three weeks, has had no falling attacks.

DISCUSSION.

Dr. A. Lapthorn Smith said he could heartily corroborate everything said about the use of the fine wire. He had treated at least a half dozen cases in which laparotomy and removal of the appendages had failed to help the patient, and yet they were completely relieved of all symptoms by the fine wire current.

Dr. Engelman said that the paper stated that 300 or 350 interruptions per second were obtained with the author's apparatus; yet as good an interrupter as he could find, i.e., the one on the best of Gaiffe's instruments—gives only 3,000 interruptions per minute, or 50 per second. If the author had really used 350 interruptions per second, the patient would not have felt the current. To get the best results we must know the dosage and precise method of application. The average vibrator on the ordinary instrument makes 2,000 to 2,500 interruptions per minute. This is whas

is called fast vibrations. Variations in adjustment will vary this rate within moderate limits.

It is important to know the number of windings on the coil—more so even than the number of feet of wire. The windings mean lines of force, and this means voltage.

DR. MASSEY moved that the discussion on this subject be adjourned until other papers of like import had been read. Seconded and carried.

(To be Continued.)

NECROLOGY.

Wm. B. Baker, M.D. of Bristol, Pa.

Edward S. Lawrence, M.D. of Philadelphia.

C. Refkowsky, M.D. of Chicago, January 23.

Dr. Harold Haas of Wabash, Ind., at Deland, Fla., February 4.

George W. Parvis, M.D. of Centerville, Md., died January 26, age 67 years.

Mathew T. Scott, M.D. of Lexington, Ky., died in Texas, January 26, age 38.

Erasmus M. Kent, M.D. of Bristol, Vt., January 26, age 57. He represented Bristol in the Legislature in 1890.

Willis O. Gilson, M.D., at Erie, Pa., January 25. He was graduated at the Western Reserve College, and was about 35 years of age.

Samuel Warde, D.D.S. of Cincinnati, January 24, age 71. He was an active member of the Mississippi Valley Dental Association and had received generous recognition of his skill in mechanical dentistry, by the presentation of medals from various societies and institutions.

Adolph Sauerherring, M.D. of Mayville, Wis., died January 24, at the advanced age of 73 years. He was a practicing physician for over half a century, and was buried under the auspices of the Masonic Lodge of Mayville on Friday, the 26th inst.

Benjamin S. Anderson, M.D., died near Media, Pa., suddenly, from heart disease age 71 years, January 24. He had been in Philadelphia at the meeting of a medical society the night before, and was on his way home when he became sick. He was a popular and successful practitioner.

Horatio N. Buckley, M.D. of Delhi, N. Y., January 24, age 74. He had lived at Delhi for the last fifty years. He was twice Treasurer of Delaware County, and sixteen years Postmaster, and for many years had been the President of the Trustees of the Delhi Academy.

Dr. Edward Griffin Crafts died at his home in East Maine, Otsego County, N. Y., January 26. He was born in Cherry Valley on July 4, 1821. Graduated in 1850 from Geneva Medical College, soon after was appointed by Cornelius Vanderbilt as Surgeon of the California steamship, *Northern Light*. In 1853 he was appointed Resident Surgeon and Agent for the Transit Company at Virginia Bay, Nicaragua, Isthmus of Panama. He later practiced in Binghamton and removed to East Maine in 1879.

Edmund Burke Haywood, M.D. of Raleigh, N.C. He was born in Raleigh in 1825; was graduated with the class of 1847 from the University of North Carolina, and received his medical degree from the University of Pennsylvania in 1849. He was Surgeon of the North Carolina State troops in 1861, and in 1862 appointed Surgeon in the Confederate Army, and placed in charge of the general hospitals at Raleigh. He was the founder of the Raleigh Academy of Medicine, and an ex-President of the State Medical Society. He was greatly beloved and esteemed by the community in which he lived.

Prof. August Hirsch, M.D., Privy Medical Councillor, died at Berlin on January 29. He lectured at the University on pathology and the history of medicine, was celebrated for his researches into the geographic distribution of epidemic diseases, and was the most distinguished epidemiologist who ever lived. His chief work was published by the Sydenham Society, and the labor and care taken in its preparation was simply monumental. For forty years the writer has been familiar with the epidemics of this country, and can testify to the accuracy of the facts as stated by him in many instances. When we last saw him in Berlin he was engaged in revising his great work and bringing it up to date. Sanitary science owes him a great deal, and sanitarians will deeply regret his death.

John H. Murphy, M.D. of St. Paul, Minn., Jan. 31, of carbuncle. He was born at New Brunswick, N.J., Jan. 22, 1826. His father was an officer in the army of the United States in the war of 1812, but was by occupation a shipbuilder. He removed to Adams County, Illinois, in 1834, and established a farm near Quincy. Here young Murphy received his early education, and afterwards was a pupil of Abram Hull, M.D., of Lewiston, Ill. He was graduated at Rush Medical College with the class of 1850, and at the time of his death was President of the Alumni Association of that institution. After his graduation he practiced at St. Anthony, Minn., where he resided until 1864, when he removed to St. Paul. In 1861 he joined the volunteer service as Acting Surgeon of the First Minnesota Volunteers, and six months later was commissioned Surgeon of the Fourth Minnesota. While in the field near Vicksburg he suffered from sunstroke and returned home, but recovered and rejoined the service as surgeon of the Eighth Minnesota Infantry. At the close of the war he resumed practice in St. Paul, and for a long time was chief surgeon of the railroads passing through St. Paul. He was Surgeon General of Minnesota for twenty years, having been appointed to that office in 1874. During his long and eventful life he occupied many positions of honor in the building up of the new State, having been a member of the Legislature of 1852 and of 1855, and of the Constitutional Convention of 1857. He was a member of various Masonic bodies, and was held in high esteem by the old soldiers, no reunion being deemed quite complete without the presence of Dr. Murphy. He was married June 28, 1848, to Miss Mary A. Hoyt, and they have had seven children. He was a regular attendant at the meetings of the AMERICAN MEDICAL ASSOCIATION, where his genial presence and his sturdy common sense views on medical subjects made him a general favorite. He will be greatly missed by the older members, and as well by many who had only recently become members of our great medical organization.

Roswell G. Bogue, M D.—The following is the report of the Committee of the Illinois Commandery of the Loyal Legion, on the death of Dr. Bogue of Chicago:

Major Roswell Griswold Bogue was born in Louisville, St. Lawrence County, New York, May 2, 1832, and died in Chicago Dec. 8, 1893. He was educated at the Castleton Academy, Vermont, and spent the earlier years of his young manhood in teaching. From the East he came to Columbus, Ohio, where he read medicine with a distinguished surgeon of that time, Dr. Norman Gay. He then attended the College of Physicians and Surgeons of New York City, from which he received his degree in the winter of 1856 and '57, and in the spring of 1857 located in Chicago and began his successful career in the practice of medicine. He found friends at the outset of his career, fitted as he was for the healing art, both by nature and education.

Upon Aug. 5, 1861, he was commissioned Major and Surgeon, and assigned to duty as Surgeon of the Nineteenth Illinois Infantry, and continued constantly in this service, until mustered out on July 9, 1864.

The Regimental Surgeon of the United States Army enters upon his duty with no expectation of increased rank or pay. He can hope for increased honors and responsibilities—and these came to Dr. Bogue. He served with his regiment through the Missouri, Kentucky, Tennessee and Alabama campaigns up to March, 1863, when he was appointed Medical Director of the second division of the Fourteenth Army Corps, commanded by General Negley. When the Army of the Cumberland was reorganized in October, 1863, Dr. Bogue was transferred to the third division of the Fourteenth Army Corps commanded by General Baird, and

again honored by the appointment as Medical Director. He was with this command in all the battles in which it participated, notably those of Chickamauga, Chattanooga, Mission Ridge, Buzzard's Roost and Resaca. In all of these posts of duty there is one continuous record of faithfulness and efficiency.

Dr. Bogue was a man of deep sympathy and he did not know what it was to spare himself when a wounded soldier was begging for help. After a battle it was no unusual experience of the faithful surgeon, to work all night, sometimes leaning over the operating table until he found it impossible to straighten himself into an erect attitude, without the aid of his assistants. It was there amid such surroundings, performing the most difficult operations of surgery by the flaring light of torches and tallow candles, with body and mind taxed to their utmost, that he doubtless laid the foundation for the disease that later on destroyed the nerves of his eyes, and then ended his life by attacking the brain.

At the close of the war, Dr Bogue returned to Chicago, and again entered upon the practice of his profession. He had a natural aptitude and love for surgery and sought as much as possible to give up his general practice, and devote himself exclusively to it. This he found it difficult to do, honored and loved as man and physician, in a multitude of homes. In addition to his skill as an operator, he was masterly in diagnosis, and his opinions were widely sought by his professional brethren.

He was one of the organizers of the Cook County Hospital, and was for thirteen years one of the Attending Surgeons. He was the first Professor of Surgery in the Woman's College, and was for many years the Attending Surgeon for the Hospital of Women and Children. He was Consulting Surgeon for both the Presbyterian and St. Joseph's Hospitals from their organizations until his death. Major Bogue joined this Commandery Dec. 5, 1883, and it is safe to say no member more keenly enjoyed its privileges. After he became entirely blind the members of the North Side made it their pleasing duty, to take turns in escorting him to the meetings, whenever the weather and his failing health permitted; and he frequently expressed his gratitude, and spoke of the meetings as the enjoyable events of the month. Blind and shut off in a large measure from later events, he loved to live over again the old army life in the papers, the old songs and the reminiscences of life in camp. Both socially and professionally the old soldier always found a sympathizing friend in Dr. Bogue, and as a citizen he was a man among men.

He was a profoundly religious man who exemplified its teachings by his every-day practical life of "doing good." Called from us before his three-score years and ten, yet his was a beautiful, well-rounded life, and one whose memory this Commandery will cherish. While we enter upon our records our high appreciation of our departed brother and express our own sorrow, we desire to tender to the loved ones in his stricken home our profound sympathy.

OLIVER W. NIXON, EVERETT B. PRESTON, ALBERT L. COE,
Committee.

BOOK NOTICES.

Addresses, Papers and Discussions in the Section of Ophthalmology at the Forty-fourth Annual Meeting of the AMERICAN MEDICAL ASSOCIATION at Milwaukee, June, 1893.

It was a happy innovation inaugurated three years ago by the Section on Ophthalmology to collect all papers read at its meetings and to republish them, after they were published in the JOURNAL OF THE ASSOCIATION, as the "Transactions of the Section."

In the present volume we miss the familiar names of some members who in the past had been among the most active workers, and who always had something interesting and instructive to present to the meetings; but on the other hand it is gratifying to note the number of new contributors; for this is a hopeful sign of the growing interest taken by the ophthalmologists all over the land in the work of the Ophthalmological Section of the ASSOCIATION.

There were thirty-three papers read in this Section at Milwaukee, and although they are not all of the highest grade of excellence, every one interested in ophthalmology will find much valuable information in this book, which he can obtain at the small expense of $1.00 by applying at the office of this JOURNAL.

SELECTIONS.

A Case of Intussusception, Operation, Recovery.—An eleven-year-old boy was attacked suddenly with persistent vomiting and bloody stools. A sausage-shaped tumor was discovered in the left hypogastric region. The lower end of the tumor appeared to be near the ileo-cecal valve; the upper end disappeared under the circle of the lower rib. There was tenderness on pressure. Laparotomy was performed and the invagination, which consisted only of the colon, was reduced with great difficulty. A gangrenous spot was discovered, about the size of a 5 cent piece, under which a tumor the size of a hazel-nut was found. An artificial anus was made, and closed in eleven to twelve weeks. The boy made a good recovery and was discharged five weeks after operation.—G. LINDEMANN in the *Centralblatt für Chirurgie.* January, 1894. [Abstracted for the JOURNAL].

Academie de Medicine de Paris.—Session of Jan. 10, 1894, M. Proust called attention to the fact of an outbreak of malignant pustule having occurred, which was traced to an importation of Chinese goatskins.

M. A. Voisin reported a case of a female attacked with melancholic mania following a right facial neuralgia dating from 1870, which had resisted all treatment, and the woman died in his service from a uterine cancer, which was found at the necropsy. There was also compression of the frontal and parietal right ascending convolution by a sort of pool formed by the cerebro-spinal fluid. In a case of this kind, craniotomy was evidently the only efficacious treatment.

M. Galeowski read a paper showing that glaucoma is due to a lymphangitis of the eye obstructing the lymphatic channels and, notably, the canal of Schlemm. Repeated external sclerotomy is the best means of relieving the obstruction.—*Progrès Médicale*, Jan. 13, 1894. [Abstracted for the JOURNAL].

E. Bassini's New Operative Method for the Radical Cure of Femoral Hernia.—This method of operating for the radical cure of femoral hernia is designed on an anatomical basis and besides being very simple has the advantage of showing many lasting results. It is evident that it will soon become as popular as Bassini's method for the cure of inguinal hernia.

Bassini shows that the femoral canal which is a funnel-shaped or triangular opening with its apex downward, is closed normally by the cribriform fascia which is directly connected with the fascia lata, Poupart's ligament and the fascia pectinea, and that neither the falciform process or Gimbernat's ligament exist as such, but are formed by the tearing and giving way of the cribriform fascia, thus forming the rupture. This occurs at the narrowest part of the canal in the femoral or crural ring.

Bassini here illustrates from a plaster cast, made by injecting plaster-of-paris into a femoral hernia, which shows plainly the position of this ring whose lower boundary is marked by the close underlying great saphenous vein at its junction with the femoral vein.

This position, as well as the normal tension of the femoral sheath, explains the fact that in a stricture or compression of a femoral hernia these veins are not affected. Normally, the tension of Poupart's ligament with the fascia lata and the cribriform fascia form a sufficient barrier against the descent of a hernia. The relaxation of these parts, as well as the separation of the fibers of the cribriform fascia, is accountable for the formation of a femoral hernia. This is also the cause of its greater frequency in women, who besides this have a broader pelvis than a male, and in whom the abdominal walls give way more easily.

The object of the operation is to bring the prolapsed and crowded parts back to their normal position and tension.

Bassini lays bare the sac, the fascia lata and fascia pectine

by an incision close under and parallel with Poupart's ligament. The sac is drawn well up above the crest of the pubis and an incision is made through it and the contents replaced in the abdominal cavity. The sac is then twisted on itself, pulled well forward and secured around its neck with clamps. The neck is then transfixed with several ligatures, the remaining portion cut away, and the stump replaced. This leaves the femoral ring plainly exposed and the structures forming the canal lie free. This is now closed with six or seven stitches as follows: The first stitch begins well up near the pubic spine and passes through Poupart's ligament. The next two stitches, near the femoral vein, lie parallel to the above, the fourth pierces the falciform process and the pectineal fascia, while the last stitch will be close to the point of exit of the saphenous vein. The ligatures are now tied, beginning from above, thus forming a letter, C. This is caused by the tension of the first three sutures which are depressed in the middle and lie close to the os pubis. Including the suturing, the entire operation lasts only from fifteen minutes to half an hour.

Bassini allows his patients to leave their beds in from eight to ten days, and dispenses with the use of a truss. In this manner he has operated on fifty-four hernias in fifty-one individuals (forty women and eleven men) ranging from 17 to 70 years of age. All recovered without complications. Eight left the hospital on the ninth day, twelve on the tenth day, five on the eleventh day and four on the twelfth day; the remaining twenty-one on the thirtieth day. None wore a truss and all resumed their usual occupations. Twenty-seven were kept under observation from three to nine years.

These good results speak clearly enough in favor of this operation, which for its simplicity should be recommended above all others.—ESCHER in *Centralblatt für Chirurgie*, January, 1894. [Abstracted for the JOURNAL].

MISCELLANY.

A. L. Neeley, M.D. of Leavenworth, Kan., has been appointed United States Marshal.

Back Number.—Members of the Association who do not keep a file of the JOURNAL will confer a favor by mailing to this office their copy of the issue of January 6, 1894.

Charles D. Rogers, M.D., formerly of Troy, N. Y., has been appointed Clerk of the United States District Court for the District of Alaska.

Dr. Laveran, well-known for his researches on the hematozon of malaria, was elected to fill the vacant chair in the Therapeutical and Natural History Section of the Academy of Medicine, Paris.

Restrictions against Tuberculous Patients Not Wanted.—During the past week a committee of the College of Physicians and Surgeons called upon the Philadelphia Board of Health, and in compliance with instructions protested against placing restrictions upon the movements of tuberculous patients.

Oppose Vaccination.—The Lutheran clergy and the local Turner Societies of Milwaukee have joined the anti-vaccination league, and it is said will try in court to fight the order of the Board of Health which requires all school children to be vaccinated.

The Greek Government has appointed Dr. D. Pavlides, Consul of Greece at San Francisco. He was educated at the Greek National College at Constantinople, and in medicine at the Ecole de Medicine of Paris. He is said to speak six languages.

Two Physicians Expelled.—A recent Berlin cable says that the Society of Physicians in Leipsic have expelled two members because they belong to the local executive of the Social Democratic Party. The physicians were at first requested to resign, but they refused to do so. The meeting which resolved to expel them decided also to amend the Society's regulations so as to exclude from membership all Social Democrats. This step is justified on the ground that many members of the Society who are army surgeons would be obliged to resign in case Social Democrats were admitted.

The Southwark Church Dispensary, Philadelphia.—The sum of $25,000 has been devised to the above named charity, by the will of the late Capt. George W. Stever of Philadelphia. Three other institutions will receive the like sum. The Protestant Episcopal Hospital, of the same place, has a donation of $5,000, under a bequest by John Boyer of Norristown.

Diphtheria.—Secretary Hunt of the New Jersey State Board of Health, has censured the Chesilhurst Township Committee, which is also the Township Board of Health, for dereliction of duty in the case of the two children of Michael Ball, who died recently of malignant diphtheria. The local Board of Health failed to compel the family to hold a private funeral as directed by County Physician Iszard, and a public funeral was held and many people, including nearly all the school children in the township, viewed the bodies, thus endangering their health and lives.

Infectious Diseases in France.—The French Minister of Public Instruction has issued certain regulations regarding the management of children sick with diphtheria, where those children are attending school. The period of exclusion of the sick child is placed at thirty days; successive disinfections must be practiced; no fruit may be consumed by the children during play hours. In respect to scarlet fever, the period of exclusion must be forty days, and the school is to be closed if several cases spring up within the first five days after the disease has been verified.

Another "Cancer Cure" Losing Ground.—The *Medical News* has been paying its respects to the notorious Mr. Stead—editor of the *Review of Reviews*—now in this country, for his advocacy of the nostrums of Count Mattei. Plain water was sold in London under the names of white, red and green electricity, at exorbitant prices, until an investigating committee compelled Mr. Stead to withdraw his approval from the smart scamps who had been trading on his reputation. A brave English journal, *Food and Sanitation*, states that the income of the representatives of the Count Mattei remedies was for a time at the rate of a half-million dollars a year.

Higher Requirements for Entrance to Medical Colleges.—The Illinois State Board of Health amended the schedule of requirements for admission to medical colleges by taking out of the hands of the college the examination in the elementary branches of education, and requiring either a certificate or diploma from a literary and scientific college or high school or, at least, a second grade teacher's certificate. A curriculum of studies for schools of midwifery was also adopted. A committee was appointed to draft an outline of sanitary work throughout the State, and the Secretary was ordered to issue a "preventive disease" circular on tuberculosis.

The officers were reëlected as follows: Dr. William E. Quine, Chicago, President; Dr. J. W. Scott, Springfield, Secretary; and Dr. B. M. Griffith, Springfield, Treasurer. The Governor has reappointed Dr. Julius Kohl of Belleville, a member of the Board.

Minnesota Lunacy Law Unconstitutional.—The Board of Trustees of the State Hospitals for the Insane met at St. Paul, January 30, for the purpose of considering what action, if any, can be taken to meet the circumstances arising from the recent decision of the Supreme Court declaring the insanity law of 1893 unconstitutional. The officers in charge of the various asylums and the members of the State Board find themselves in a very peculiar and delicate position, owing to the fact that there are at present some 740 insane patients in the various asylums who were committed to their custody under the unconstitutional law. It would be a calamity to release these insane patients, and there might arise some difficulty in detaining them. The meeting was called to devise some method of meeting the complication, and it was considered the wisest course to meet in executive session until a satisfactory plan is decided upon.

Those present at the meeting were President J. W. Mason,

Robert A. Smith, T. H. Titus, John Peterson and Dr. W. A. Jones of the State Board; Dr. H. A. Tomlinson, Superintendent of the St. Peter Asylum; Dr. A. F. Kilbourne, Superintendent of the Rochester Asylum; Dr. D. B. Collins, of the State Lunacy Board, and Secretary H. H. Hart, of the State Board of Corrections and Charities. After conferring together and discussing the situation, a plan was prepared and submitted to Attorney General Childs for his opinion. When the opinion is prepared and submitted to the Board the matter will be made public, but it will probably be several days before the Attorney General prepares his statement.—*Pioneer Press.*

Cincinnati Notes.

The City of Cincinnati recently enacted an ordinance compelling all practitioners of medicine within the city limits to register at the Health Department, and investing the Health Officer with discretionary power in determining who should register under the terms of the ordinance. The vigorous and energetic Health Officer, Dr. J. W. Prendergast, enforced the law, refusing recognition to the holders of diplomas issued by the American Eclectic Medical College of this city. One Baldwin, applied to the Circuit Court for a writ of mandamus compelling the Health Officer to register the former, on the strength of a diploma issued to him by the institution in question. The Court gave the widest possible range to the testimony with the result of eliciting a deplorable state of affairs. The plaintiff could not remember the names of many members of the alleged Faculty, and in one instance in which he could remember the name of a so-called Professor, he could not recall upon what subject he had lectured. A majority of the members of the so-called Faculty who were in court were holders of the degree conferred by their own institution. An examination of the announcements of the concern during the last several years showed that a very large proportion of those announced as professors were intangible sort of individuals residing in remote localities ranging from Michigan to Florida. The concern has had considerable unpleasant notoriety in the past. A decision has not yet been rendered. The case, however, serves to point to the loose incorporation laws, and to the worse than no medical regulation laws now existing in Ohio. It is a sad commentary upon the legislative function of a State when it becomes necessary for its own cities, for the sake of protection from impostors, to exercise the authority which it enjoys as a means of police regulation. An excellent bill is now pending in the Legislature, and every member of the American Medical Association residing in the State of Ohio should write at once to his Senator or Representative urging that it be passed as speedily as possible.

All that is necessary to start a medical college in Ohio is for five or more men, not necessarily physicians, to sign a prescribed form, swear that they have $5,000 worth of property,—which property may exist in the form of notes executed by themselves and held at purely fictitious values—and apply to the Secretary of State, and a charter is at once granted. This condition of affairs is simply appalling, and is another question calling for remedial attention at the hands of the Legislature.

Professor Geo. A. Fackler has returned from Europe and resumed his duties at the Cincinnati College of Medicine and Surgery. A Laboratory of Experimental Therapeutics is being rapidly equipped, chiefly with apparatus from Europe, and will be under his care. Professor S. P. Kramer of the same institution is home after six months in the surgical clinics of Germany and England.

A movement is on foot to popularize the membership in the Academy of Medicine. The annual dinner, which takes place the first week in March, promises to be a very successful event.

Philadelphia Notes.

The College of Physicians and Surgeons has apparently concluded to enter upon a new stage of development, by authorizing the organization of Sections among Fellows of the College, for the special consideration of different branches of medical practice. Last year the Ophthalmic Section was instituted and held regular meetings each month, at which much interest was shown and many good papers were read. The Orthopedic Section was formed next and recently, a Laryngological Section was organized which held its first meeting in January. On February 1 a Section on General Surgery was formed, and others are expected to follow shortly. The College is the owner of a fine building and a valuable library and museum, and is well equipped for entering upon an era of greater activity than it has ever hitherto witnessed in its long and honorable career.

Students' Religious Services have been held on Sunday evenings during the winter under the auspices of the Young Men's Christian Association, which has also established branch organizations in connection with each College. The Sunday evening services have been held in one of the theaters; this year the Walnut Street Theater was secured for this purpose. The meetings have been very well attended. The final service was held January 28, at which brief addresses were made by Drs. Horatio C. Wood, J. M. Andus, Theophilus Parvin, Wilbur F. Litch, and John E. James. Attractive music was furnished by the Mandolin and Guitar Club of the Philadelphia Dental College, and several selections were rendered by the Jefferson Quartette, besides other vocal music.

The Pennsylvania Hospital has recently erected within its spacious grounds three memorial pavilions on its Spruce Street front, which will give it an increased capacity of about one hundred and fifty beds. It is understood that this portion of the Hospital is to be devoted principally or exclusively to surgical cases. The remaining portion of the buildings will be subjected to thorough renovation and remodeling in order to make them correspond with the recent additions. The clinical amphitheater will probably be torn down and a larger one erected in a more convenient position. The construction of the new wards was made possible through the liberality of the wife and daughter of the late Wistar Morris, President of the Board of Managers. The amount given was $150,000, "for the erection of a Memorial House with such wards, extensions and improvements as might be deemed advisable by the Board of Managers." Previously, a bequest of $50,000 had been received from the estate of the late Samuel Welsh, Esq., a former Manager which was devoted to a Memorial Ward for children. With this amount, three large stone and brick buildings, the central one four stories and the side pavilions three stories in height, all connected by stone inclosed corridors have been built and will soon be opened. A Nurses' Home or dormitory for the Nurses Training School has been built on the same lot at Ninth and Spruce Streets, at a cost of $50,000, which was furnished by the Blanchard family. A fine two-story Out-patient Department has also been provided at a cost of about $50,000 by Mr. W. E. Garrett. The new buildings are important improvements and present a very attractive appearance from Spruce Street. Dr. Thomas G. Morton, the senior member of the Surgical Staff, is preparing an illustrated history of the Hospital which will probably be issued early in the summer.

Philadelphia County Medical Society.—At the last meeting of the County Medical Society held January 24, Dr. D. T. Laine read the report of his successful case of cholecystenterostomy in which the Murphy button was used. At the same meeting Dr. Hannah T. Croasdale gave the clinical history of a case having two separate and distinct uteri centrally situated and not connected, one being located in front of or above the other. The discussion was opened by Dr. Robert P. Harris. Following this, Dr. Julladison Taylor read a paper on the "Insane Disorders of Childhood," and Dr. Charles P. Noble described a new method of examining the kidney especially for stone in the pelvis. The January business meeting did not pass off as quietly as was anticipated, since at the annual election for officers there were no opposition candidates, only one nomination having been made for each vacancy. Prof. Clara Marshall of the Woman's College, had been regularly nominated for the Vice-Presidency; but just before the election began, unexpected opposition was developed to this very excellent nomination, and other candidates were named and voted for. It was finally decided that there had been no election for Vice-President and that the nominations must lie over until next business meeting, when another election will be held, and the opposition will then have a fair opportunity of

standing up to be counted. Since the AMERICAN MEDICAL ASSOCIATION has recognized the right of women to membership, their rights to membership and to hold office in county societies can no longer be questioned.

DR. JOSEPH PRICE, having resigned his position as Superintendent of the Preston Retreat of this city, a lying-in hospital for respectable married women, the managers elected Dr. Richard C. Norris, recently, as his successor. Dr. Norris has been for several years connected with the Medical Department of the University of Pennsylvania in the capacity of Instructor in Obstetrics and Lecturer on Clinical and Operative Obstetrics. The general feeling is that the managers have done well in securing the services of so able a successor to the retiring Superintendent, who during his administration brought the institution to a high state of efficiency and greatly increased its reputation.

MEDICO-CHIRURGICAL COLLEGE.—The Trustees of the Medico-Chirurgical College have just created three new clinical chairs, which will not be filled, however, until the close of the present session. The new chairs are those of clinical otology, orthopedic surgery, and genito-urinary surgery. Dr. Frank Woodbury has resigned from the chair of clinical medicine to devote his attention to laryngology.

BOARD OF EXAMINERS.—The new law goes into effect on the first of next March, after which time the diplomas of medical institutions in this State will no longer be accepted as conferring the right to practice medicine, but all practitioners entering the profession must receive a license from the Board of Examiners and Licensees. After July, 1895, no diploma will be recognized by the Board, unless it shall come from a college requiring a four years medical course. Physicians licensed in other States, in which the standard of requirements is substantially the same as in Pennsylvania, will be entitled to a license without further examination. The new law does not affect physicians already registered, nor does it apply to physicians from other States called in consultation with registered physicians in this State.

While the present legislation is not all that the regular profession would desire it represents, at least, all that is practicable at present, and the influence upon the standard of medical practice and upon our medical schools will be undoubtedly very beneficial in many respects.

Hospital Notes.

Lakeside Hospital of Chicago.—At the annual meeting of this Hospital held January 27, the following were added to the Medical Staff: Drs. Bayard Holmes, William W. Harsha, C. H. Whitman, F. W. Jay, H. H. Demming, T. Watkins, Charles H. Oughton, E. Lewis, F. T. Mattison, William Courtwright, William Culbertson, John E. Harper, A. J. Baxter and L. Harrison Mettler.

Charity Hospital of Chicago.—This Hospital held its annual meeting January 27. The following officers were elected for the ensuing term:

President, Mrs. H. M. Wilmarth; Vice-President, Willard T. Block; Corresponding Secretary, Mrs. Frank Logan; Treasurer, James R. Chapman. The position of Secretary is yet unfilled.

The Attending Medical Staff for the ensuing year was confirmed as follows:

Attending gynecologists, Dr. Franklin H. Martin (also Chief of Medical Staff); Dr. J. T. Binkley, Dr. F. B. Robinson; rectal surgery, Dr. Joseph B. Bacon; eye and ear, Dr. W. F. Coleman; throat and nose, Dr. E. B. Dickerman; skin diseases, Dr. Alfred Shallack; general medicine, Dr. Robert Dodds; diseases of children, Dr. J. C. Cook; obstetrics, Dr. C. A. Paddock.

Consulting Physicians: Dr. J. H. Hollister, Dr. Frank Billings, Dr. Charles W. Purdy, Dr. Frank Johnson, Dr. W. E. Casselberry, Dr. H. T. Byford, Dr. W. W. Jaggard, Dr. Sarah Hackett Stevenson.

The following heads of Committees were appointed: Reception Committee, Dr. Dodds; Dispensary, Dr. Binkley; Household, Mrs. Joseph Pfirshing, Mrs. Baker, Mrs. Martin; Ways and Means, Ernest W. Heath, F. E. Pettitt, Willard T. Block, Dr. Franklin H. Martin.

Dr. Martin made a report on pledges for running expenses for the coming year, and was able to report that $4,200 had been pledged to be paid to the institution in twelve monthly installments. This, it is expected will form a substantial nucleus for conducting the affairs of the Hospital for the ensuing year. In order to run the institution in its fullest capacity, however, it will be necessary for the Treasurer to receive further contributions. All such contributions will be received by James R. Chapman, Treasurer, cashier American Trust and Savings Bank.

THE PUBLIC SERVICES.

Is Recognized after Many Years.—Col Irwin Awarded the Bronze Medal of Honor by the War Department.—Col. B. J. D. Irwin, Medical Director of the Department of the Missouri, U. S. A., has been awarded the bronze medal of honor which Congress, by an Act passed in 1864, authorized the War Department to confer upon officers or enlisted men for any specially meritorious conduct in action. Dr. Irwin has waited long for this recognition, for the act for which the medal is granted was performed almost thirty-three years ago. Col. Irwin was then a young surgeon with the rank of Second Lieutenant, and was serving in New Mexico, where the Apaches were on the warpath. The medal is awarded for bravery in fighting the redskins.

Army Changes. Official list of changes in the stations and duties of officers serving in the Medical Department, U. S. Army, from January 27, 1894, to February 2, 1894.

Lieut. Col. FRANCIS L. TOWN, Deputy Surgeon General U. S. A., is relieved from duty at Ft. Porter, N. Y., to take effect on the expiration of his present sick leave of absence, and will report in person to the commanding General, Department of the Missouri, for temporary duty in the office of the Medical Director of that Department.

Col. JOSEPH R. SMITH and Col. BERNARD J. D. IRWIN, Asst. Surgeons General U. S. A., are detailed to represent the Medical Department of the Army at the Eleventh International Medical Congress to be held at Rome, Italy, March 29 to April 5, 1894, and will proceed to the place designated at the proper time.

Navy Changes. Changes in the Medical Corps of the U. S. Navy for the week ending February 3, 1894.

Surgeon T. H. STREETS, from U. S. S. "Bennington," and to U. S. S. "Detroit."

Surgeon C. T. HIBBETT, from U. S. S. "Detroit," and to U. S. S. "Bennington."

Surgeon J. W. ROSS, ordered to the U. S. S. "Independence."

P. A. Surgeon F. W. OLCOTT, ordered to the Naval Hospital, Brooklyn, N. Y.

P. A. Surgeon L. W. SPRATLING, from Naval Hospital, New York, and wait orders.

Marine Hospital Service.—A board of medical officers will meet Monday April 16, 1894, in Washington, D. C., for the purpose of examining candidates for appointment to the grade of Assistant Surgeon, in the Marine-Hospital Service.

For further information address the Supervising Surgeon General U. S. Marine-Hospital Service, Washington, D. C.

LETTERS RECEIVED.

(A) Adams S. S., Washington, D. C.

(B) Bailey, W. V., Louisville, Ky.; Billings, J. S., Washington, D. C.; Ball, T. R., Baltimore, Md.; Booth, W. H., Utica, N. Y.; Berry, Jas. C., Peebles, Ohio; Bennett. R. G., Pittston, Pa.; Beggs, R. P., Youngstown, Ohio; Brown, G. V. S., Duluth, Minn.

(C) Clark, M. S., Youngstown, Ohio; Cummings, H. J., St. Louis, Mo.; Cochran, Jerome, Montgomery, Ala.; Christopher, W. S., Chicago, Ill. Cleaves, M. A., New York, N. Y.; Cook, Geo. F., Oxford, Ohio; Cincinnati Hospital Library, Cincinnati, Ohio; Cutter, John A., New York, N. Y.; Caverly, C. S., Rutland, Vt.

(D) Dunlap, H. M., Battle Creek, Mich.; Drevet M'f'g Co., New York, N. Y.; Duhring, Louis A., Dunglison, R. J., Philadelphia, Pa.

(E) Ewing, H. C., New York, N. Y.; Einhorn, Max, New York, N. Y.; Englemann, Dr. Rosa, Chicago, Ill.

(F) Fox, William, Milwaukee, Wis.; Foster, J. M., Richmond, Ky.; Ferguson, E. D., Troy, N. Y.; Flint, H. A., St. Paul, Minn.

(G) Gardner. R. W., New York, N. Y.; Greene, Chas. L., St. Paul, Minn.; Gudex, V. A., Milwaukee, Wis.; Greenley, T. B., Meadow Lawn, Ky.; Gibbons, Jas. E. Baltimore, Md.

(H) Halsted, F. H., Syracuse, N. Y.; Herdman, Wm. J., Ann Arbor, Mich.; Hand, W. R., Herman, Minn.; Hall, Rufus B., Cincinnati, Ohio; Hotz, F. C., Chicago, Ill.; Hobday, Wm. A., Duluth, Minn.; Haller, J., Lanark, Ill.

(J) Judkins, William, Cincinnati, Ohio.

(K) Kirkley, C. A., Toledo, Ohio; Keehn, G. A., St. Louis, Mo.; Kirkpatrick, A. B., Philadelphia, Pa.; Kuh, E. J., Chicago, Ill.

(L) Lowenthal, Louis, Washington Heights, Ill.; Levy, Robt., Denver, Colo.; Lieberman, B. H., Kansas City, Mo.

(M) Martin, F. H., Chicago, Ill.; Marks, A. A., New York, N. Y.; Montezuma, Carlos, Carlisle, Pa.; Mellier Drug Co., St. Louis, Mo.; McIntire, Charles, Easton, Pa.; Mackintosh, M. A., Paterson, N. J.; Merck's Market Report and Pharmaceutical Journal, New York, N. Y.; Millard, P. H., St. Paul, Minn.

(N) New York Academy of Medicine, New York, N. Y.

(P) Pantzer, H. O., Indianapolis, Ind.; Parry, J. W., New York, N. Y.; Parkinson, J. H., Sacramento, Cal.

(Q) Quin, R. A., Vicksburg, Miss.

(R) Ridlon, John, Chicago, Ill.; Rauch, J. H., Lebanon, Pa.

(S) Salvia Chemical Co., St. Louis, Mo.; Seaman, M. W., Denver, Colo.; Skinner, W. B., Anamosa, Iowa; Scott, J. W., Springfield, Ill.

(T) Townsend, R. B., Pauline, Adams Co., Neb.; Trommer Ext. of Malt Co., Fremont, Ohio; The New York Post Graduate Med. School, New York, N. Y.; Thornton, Jno. H., Lansing, Iowa; Tracy, J. L., Toledo, Ohio; Tyrrell, G. G., Sr., Sacramento, Cal.; Towler, S. S., Marienville, Pa.

(V) Vetter, J. C. & Co., New York, N. Y.

(W) Ward Brothers, Jacksonville, Ill.; Weston, A. T., New York, N. Y.; Wilson, W., Yankeetown, Ind.; Woodbury, Frank, Philadelphia, Pa.; Wegge, Wm. F., (2) Winnebago, Wis.; Warner, J. W., New York, N. Y.; Wells, E. A., Chicago, Ill.